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| **Spec Item** | **Title** | **Description** |
| 1 | General Information | The Contractor shall provide all labor, management, supervision, tools, material, and equipment to perform utilities management services at Joint Region Marianas on the island of Guam. |
| 1.1 | Concept of Operations | The Contractor shall operate, maintain, repair, monitor and analyze utility production and distribution systems, meet customer demands and requirements of all operating permits to include the National Pollutant Discharge Elimination System (NPDES) and the water quality standards of the Safe Drinking Water Act (SDWA), as well as applicable laws, regulations and standards to maximize system availability, reliability and sustainability.<br><br>Coordinate operations with specific environmental compliance oversight, reporting and permit renewal requirements. Ensure that the Government is apprised of any situations of non-compliance. The Government will coordinate the interface with regulatory agencies.<br><br>Provide multi-discipline engineering and technical services to operate, maintain and repair utility production and distribution systems as specified under Annex 15 and under this annex.<br><br>Plan, prepare and perform emergency operations and measures. Continue to operate and maintain utility systems during periods of contingencies and recovery operations.<br><br>Utility location of services are listed in Navy Facilities Asset Data (from iNFADS) J-0200000-02. Utility boundaries for services shall be in accordance with NAVFAC P-603 Utilities Infrastructure Management Manual. |

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| 2 | Management and Administration | |
| 2.1 | Definitions and Acronyms | Definitions and Acronyms are provided in J-0200000-01. |
| 2.2 | Personnel | The Contractor shall provide personnel with the qualifications, certifications, technical knowledge, experience and skills required to perform utility management services. |
| 2.2.1 | Certification, Training and Licensing | The Contractor shall submit proof of all certification, training and licensing requirements per Annex 2. All required licenses and certifications will be kept current. |
| 2.2.2 | Key Personnel | |
| 2.2.2.1 | Utility Manager | The Contractor shall provide a Utility Manager whose primary responsibility is to oversee the business and operations of all utility systems and ensure all utility systems are operated and maintained in accordance with contract requirements. The Utility Manager or designated alternate shall be onsite during the Government's regular working hours and shall be available onsite within one hour after the Government's regular working hours.<br><br>The Utility Manager shall be a registered professional engineer (Electrical, Mechanical, Civil, or Environmental) licensed by a U.S. State or Territory with a minimum of five years' experience in managing utility systems of similar size and complexity; or has a Bachelor of Science degree in Engineering from a U.S. accredited college, university, or institution or an equivalent ABET-accredited college or university program with 10 years' minimum experience in managing utility systems of similar size and complexity. The Utility Manager shall not occupy more than one personnel position at the same time. |
| 2.2.2.2 | Utility Liaison | The Contractor shall provide a Utility Liaison whose primary responsibility is to ensure utility work is accomplished in accordance with J-1601000-01. The Utility Liaison shall be onsite during the Government's regular working hours and shall be available onsite within one hour after the Government's regular working hours.<br><br>The Utility Liaison shall have a minimum of three years of experience managing utility systems of similar size and complexity and shall possess a Bachelor Degree in Science and Engineering from an accredited university. The Utility Liaison shall not be the same person as the Utility Manager. |
| 2.3 | Special Requirements | |
| 2.3.1 | Management and Information System (MIS) | The Contractor shall provide all required data for the Government's Computerized Maintenance Management System (CMMS) MAXIMO by direct entry per Annex 2.<br><br>In addition to MAXIMO, the Contractor shall input and process information for Centralized and Integrated Reporting for the Comprehensive Utilities Information Tracking System (CIRCUITS®) and its associated modules and applications, which is the Government's web-based system for the comprehensive utilities information tracking.<br><br>The utility consumption data shall be provided in the format of the software programs for dBase® and "DAT" (ASCII) files. |

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| | | The Contractor shall input all required management/operational plans, data and reports into the Guam Network (G-Net) per Annex 2.<br><br>Maps, drawings and schematic diagrams shall be provided in latest AutoCAD® and Utility Geographic Information System (GIS) electronic data file format or format compatible with the latest Government version of AutoCAD® and Utility GIS. |
| 2.4 | References and Technical Documents | References and Technical Documents are listed in J-0200000-04. |

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| 3 | Recurring Work | The Contractor shall provide utility management services to ensure real property infrastructure supports the mission of the warfighter. | The Contractor shall be knowledgeable of and comply with installation utilities management reporting and coordination requirements, such as:<br>a) NAVFAC P-603 Utilities Infrastructure Management Manual.<br>b) NFPA<br>c) NAVFAC ESAFE<br>d) NAVFAC PWUC Criteria<br>e) UFC<br>f) NAVFAC Utilities GIS Data Sustainment (UGDS) Guide<br>g) NAVFAC UICAP Sustainment.<br><br>The current MAXIMO Utilities Assets are provided in J-1601000-02.<br><br>Navy Facilities Asset Data (from iNFADS) is provided in J-0200000-02.<br><br>Provide proactive management and macro-outlook of the utility production and distribution systems. Analyze unusual conditions, system/component conditions, operations and capabilities, water production, consumption, total volume storage, and system pressure and losses to determine utility production and distribution systems' performance while improving system availability and effectiveness. | Utility management services are performed as specified.<br><br>Utility management services are completed within the specified time. |
| 3.1 | Utility Work Orders | The Contractor shall perform utility work orders in a timely manner to ensure utility systems and equipment are restored to a safe, normal working condition and function properly. | The Contractor shall receive utility work orders from the Government's MAXIMO in accordance with the work reception requirements in Annex 2. Information related to estimated utility maintenance and repair workload is provided in J-1601000-03.<br><br>The Contractor shall schedule and perform work orders in a | Utility work orders are responded to and completed within the specified time.<br><br>Utility systems and equipment are restored to normal working condition, including |

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| | | | way that minimize disruptions to customers and Government operations.<br><br>The Contractor shall perform work orders to accomplish any work identified within the points of demarcation for utility systems. Work orders are not limited to work performed on existing utility systems and equipment identified in the respective Section J attachments or spec items for each Annex. Additional utility systems and equipment added during the course of the contract will become part of the work order program at no additional cost to the Government<br><br>Samples of estimated workload data are provided in J-1601000-04. Estimated quantities and supporting information provided is intended to illustrate the volume of work orders issued and examples of work that has been performed in the past and is not to be construed as a limiting factor to services ordered and performed in the future.<br><br>The Government may combine multiple repair requirements received for the same trade in the same location at the same time into one work order as long as the work order threshold is not exceeded. | recertification if applicable.<br><br>When repair is complete the utility system or equipment does not present danger to personnel or equipment. |
| 3.1.1 | Emergency Work Orders | The Contractor shall respond to emergency work orders and arrest emergent conditions to minimize and mitigate damage to utility systems and equipment and danger to personnel. | The Contractor shall perform emergency work orders 24 hours a day, seven days a week throughout the contract period.<br><br>The Contractor shall respond to emergency work orders with the appropriate service personnel and equipment to commence work immediately. | Emergency work orders responded to within one hour of receipt of call.<br><br>Emergency work orders are arrested within 24 hours of receipt of call.<br><br>Work is continued without interruption until |

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| | | | The Contractor shall remain at the work site until the emergency has been arrested. | emergent condition is arrested. |
| 3.1.2 | Urgent Work Orders | The Contractor shall complete urgent work orders in a timely manner and ensure utility systems and equipment are restored to a safe, normal working condition and function properly. | The Contractor shall perform urgent work orders to repair deficiencies without extended delay, therefore preventing further damage to utility systems and equipment | Urgent work orders are completed within five working days. |
| 3.1.3 | Routine Work Orders | The Contractor shall complete routine work orders in a timely manner and ensure utility systems and equipment are restored to a safe, normal working condition and function properly. | The Contractor shall perform routine work orders to repair deficiencies and return utility systems and equipment to normal working condition.<br><br>Performance of routine work orders is not required outside of Government regular working hours. | Routine work orders are completed within 30 calendar days. |
| 3.2 | Utility Operations Support | The Contractor shall provide support services to ensure timely and accurate coordination and support of utility operations. | The Contractor shall provide status and updates on utilities operations support services upon request.<br><br>Informational note:<br>Estimated quantities for utilities operations requirements are provided in J-1601000-03. | Services are properly documented and updated as specified. |
| 3.2.1 | Utilities Mapping | The Contractor shall maintain and update utility maps and engineering drawings to ensure technical information is accurately documented in a timely manner. | The Contractor shall update utility maps and engineering drawings, per Section F, at the end of each month to reflect the system revisions for that month. Ensure revision dates are marked on the revised maps.<br><br>The Contractor shall maintain the utility maps in the same format as provided by the Government.<br><br>The Contractor shall update One-Line (Schematic) Drawings, per Section F, for electrical systems at the end of each month to reflect configuration changes. | Maps and drawings are current and accurate.<br><br>Maps and drawings are updated within specified time.<br><br>Electronic system maps changes are complete, accurate and updated at the end of each month.<br><br>Electronic one-line (schematic) drawings changes are complete, accurate and |

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| | | | GIS data must adhere to Data Collection Guide. Data in AutoCAD drawings must be georeferenced. Ensure revision dates are marked on the revised maps.<br><br>Current versions of system maps and drawings shall be stored on G-Net or the Technical Library. | updated at the end of each month.<br><br>Utilities Systems Government Property List spreadsheets are complete, accurate, and maintained current on the Government local intranet. |
| 3.2.2 | Utility Outage Scheduling and Coordination | The Contractor shall schedule and coordinate utility outages to ensure customer and mission operation disruptions are minimized and proper notifications are made in a timely manner. | The Contractor shall develop and submit a scheduled outage plan/service disruption plan and provide per Section F. The Contractor shall outline the procedures and process to be followed before, during and upon completion of the outage or service disruption. Include customer and building notification and coordination procedures, equipment preparation, operations and switching if required.<br><br>The Contractor shall provide specific plans for each outage or service disruption to the KO for approval five days prior to outage.<br><br>Outages and service disruptions will normally be scheduled after normal working hours or weekends.<br><br>In the case of Government scheduled outage, the Contractor will be informed as far in advance as time permits of dates and time of outage including outages scheduled by Contractor for preventive, predictive and proactive maintenance.<br><br>The Contractor shall restart and perform operational checks on all equipment affected by the outage or service interruption. | Affected customers are notified within the specified time prior to a scheduled outage.<br><br>Affected customers are kept notified of the outage status. |

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| | | | There shall be no scheduled outages without customer notification and approval.<br><br>The Contractor shall monitor scheduled and unscheduled utility outages and keep affected customers informed of the outage status and time or date the interrupted utilities are anticipated to be restored. Outages shall be reported as per Section F. | |
| 3.2.3 | Meter Reading and Inventory | The Contractor shall collect and provide accurate and timely meter readings and supporting data using Government provided schedule to facilitate billing of customers.<br><br>The Contractor shall provide complete meter inventory and meter maps. | The Contractor shall ensure that all data, records, and documentation are complete, accurate, and result in a clear audit trail.<br><br>The Contractor shall collect and provide Meter Reading Data for Utility Consumption to NFM Guam Utilities Department per Section F.<br><br>Manage complete meter inventory, including, but not limited to, all customer meter additions/deletions, correlation with meter serial numbers, meter map update for CIRCUITS, and full documentation of meters replaced or repaired. Provide Meter Inventory and Change Report per Section F.<br><br>Establish meter reading routes and walking sequences aligned with CIRCUITS and provide Walking Sequence and Updated Meter Map for CIRCUITS report per Section F. | Meter readings are conducted on Scheduled read date and submitted within one working day of scheduled read date.<br><br>Raw data are accessible to the Government no more than one working day after meter reading.<br><br>Meter readings and supporting data are provided on time, complete, accurate and legible<br><br>Accurate meter inventory is established and maintained with reported changes provided on time, complete, accurate and legible.<br><br>Unusual report, monthly consumption tally, customer detail report, and electronic files are provided on time in accordance with Government |

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| | | | | furnished schedules. |
| 3.2.3.1 | Utility Billing | The Contractor shall provide utility billing support to ensure accurate and timely utility billing. | The Contractor shall input and process meter reading information into the Government's Centralized and Integrated Reporting for the Comprehensive Utilities Information Tracking System (CIRCUITS) and its associated modules and applications utilizing Government provided tools and files. | Utility billing is accurate and submitted on time. |
| 3.2.4 | Utility Escort Services | The Contractor shall escort personnel to inspect and obtain information about the system for various reasons when requested. | The Contractor shall provide escorting service when personnel require access and/or information regarding utility systems/operations. The date, time and requested support requirement will be provided by the KO no later than 24 hours prior to the required service.<br><br>Historically, there have been approximately 125 requests of three hours each annually. | Personnel are familiar with the utility system.<br><br>Personnel are on site as scheduled for each utility escort. |
| 3.2.5 | Environmental Sampling and Analytical Services | The Contractor shall provide environmental analytical and sampling services for compliance and operating functions to support Navy Guam BOSC Supported Components and Tenant Commands and facilities in accordance with Federal and local safety and environmental regulations and permits, DoD and Navy instructions and policies. | The Contractor shall ensure Environmental Sampling and Analytical Services shall include as a minimum the requirements and activities listed in this Specification Item and J-1601000-05, which shows representative Government sampling and analytical workload data and activities. Actual workload data and activities are subject to change. Services shall be provided by labs that are EPA or GEPA certified and/or accredited, and operated in accordance with other applicable guidance.<br><br>The Contractor shall perform all required activities to ensure compliance with OPNAVINST 5090.1, "Sampling and Laboratory Testing" and relevant references in J-0200000-04. | Environmental Compliance in accordance with legal and regulatory requirements.<br><br>Analyses are accurate and complete.<br><br>No analysis results shall exceed two times the reporting requirement duration. |

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| | | | The Contractor shall develop and submit the following per Section F:<br>a) Sampling and Analyses Results Reports<br>b) Laboratory Certifications and Accreditations<br>c) Sample Analysis Completion Rate Reports<br><br>The Contractor shall provide microbiological, organic, and inorganic sampling and testing as required for:<br>a) Compliance, e.g. Safe Drinking Water Act, Clean Water Act; NPDES; Analytical Testing of Multimedia Samples such as Hazardous Waste, Soil and Ground-water; Contamination Studies; Drinking Water and Wastewater Effluent Monitoring Programs; Breathing Air Analysis Program and Used Oil Testing Program that supports used oil, oil waste, bilge water and Technical Specifications 1604000 Wastewater and 1606000 Water<br><br>b) COR will approve customer requests, e.g. water complaints, investigations, and testing required for plant process control.<br><br>The Contractor shall ensure lab services demonstrate and provide acceptable testing capability for each required analyte tested every year under NPDES and water performance evaluation program in support of permit monitoring requirements.<br><br>The Contractor shall provide an analysis that meets response and reporting requirements that meet | |

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| | | | customer data quality and response requirements.<br><br>The Contractor shall ensure routine analysis results are reported within 14 calendar days of submittal. Exceptions are allowed for radionuclide, asbestos, cryptosporidium, dioxin and whole effluent toxicity samples. Additional exceptions may be granted with prior approval by the COR.<br><br>The Contractor shall ensure rush analysis results reported in seven calendar days.<br><br>The Contractor shall ensure urgent oil and biological analysis results reported in one day except HPC or other analyses, which shall be reported in three days.<br><br>The Contractor shall ensure sampling services include, but are not limited to, all materials needed for sample collection, preservation and transportation.<br><br>The COR or representative will assign priority of analysis.<br><br>The Contractor shall provide the maintenance or any continued certification of the lab equipment provided.<br><br>Informational note:<br>Lab space and equipment are available for Contractor operation and use. The Government will recapitalize lab equipment. | |
| 3.2.6 | Utilities and Energy Management (UEM) Operations Support | The Contractor shall provide monitoring, inspection, data collection, reporting and document preparation | The Contractor shall perform all required activities to ensure compliance with OPNAVINST 5090.1, "Clean Air Ashore" and relevant references in J-0200000-04. | Environmental Compliance in accordance with legal and regulatory requirements. |

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| | | services to ensure the UEM functions comply with Federal and local statutes and regulations, and with DoD and Navy policies, instructions and guidance. | The Contractor shall develop and submit the following per Section F:<br>a) Air Emission Inventory<br>b) Clean Air Act (CAA) Permit Applications<br>c) Relocated Air Emissions Unit Notification for Portable Sources<br>d) CAA Permit Compliance Certifications<br>e) CAA Air Permit Compliance Reports<br>f) CAA Annual Emissions Fee Reports<br>g) CAA Data Calls information packages<br>h) Risk Management Plans and updates<br>i) CAA Program Oversight Certification<br><br>The Contractor shall perform all required activities to ensure compliance with OPNAVINST 5090.1, "Clean Water Ashore" and relevant references in J-0200000-04.<br><br>The Contractor shall develop and submit the following per Section F:<br>a) Notifications required by National Pollutant Discharge Elimination System (NPDES) Permit<br>b) NPDES Surveys<br>c) NPDES Studies<br>d) NPDES Permit Compliance Reports<br>e) Applications for new NPDES Permit<br>f) Renewal Application package for existing NPDES permitted discharges (Note: Navy holds existing NPDES permits for Apra Harbor Wastewater Treatment Plant and Fena Water Treatment Plant and an MS4 permit for NBG Guam.) | No occurrences of Violation Classes 1 through 4 as defined in references J-0200000-01 and J-0200000-04. |

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| | | | g) NPDES Discharge Monitoring Reports for Apra Harbor Wastewater Treatment Plant, the Fena Water Treatment Plant and for NBG's MS4 permit<br>h) Biosolids Report for Apra Harbor Wastewater Treatment Plant<br>i) NPDES Monitoring Reports<br>j) Non-domestic Wastewater and Pretreatment Surveys<br>k) Non-domestic Wastewater Discharge Certificates<br>l) Non-domestic Wastewater Discharge Monitoring Reports<br>m) Department of the Army Permit Applications<br>n) Clean Water Act (CWA) Section 401 Water Quality Certification applications<br><br>The Contractor shall perform all required activities regarding the production, use, protection, and conservation of drinking water to ensure compliance with OPNAVINST 5090.1, "Safe Drinking Water Act Compliance Ashore" and relevant references in J-0200000-04.<br><br>The Contractor shall provide training to all personnel involved in the drinking water program.<br><br>The Contractor shall develop and submit the following per Section F:<br>a) New and renewal Drinking Water Well Permit applications<br>b) New and renewal Monitoring Well Permit applications<br>c) Drinking Water Well Production Report<br>d) Drinking Water Well Inspection and Assessment Report<br>e) Safe Drinking Water Act (SDWA) (Interim | |

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| | | | Enhanced) Surface Water Treatment Regulations Compliance Monitoring Report<br>f) Bacteriological Quality of Potable Water Monitoring Report<br>g) Distribution System Chlorine Residual Monitoring Report<br>h) Finished Water Fluoride (Average) Monitoring Report<br>i) SDWA Disinfection By-Product (DBP) Monitoring Report<br>j) SDWA Disinfection By-Product (DBP) Precursor Monitoring Report<br>k) SDWA Synthetic Organic Compounds (SOC) Monitoring Report<br>l) SDWA Volatile Organic Compounds (VOC) Monitoring Report<br>m) SDWA Lead and Copper Monitoring Report<br>n) SDWA Inorganic Chemicals (IOC) Monitoring Report<br>o) SDWA Nitrate Monitoring Report<br>p) SDWA Radionuclides Monitoring Report<br>q) SDWA Asbestos Monitoring Report<br>r) SDWA Consumer Confidence Report<br>s) SDWA Consumer Confidence Report Data for Consecutive Water Systems<br>t) New and Emerging SDWA Regulations Assessment Report<br>u) SDWA Data Calls information packages<br>v) SDWA Notifications for instances of Water Treatment and Distribution System variances from SDWA regulations<br>w) Water Quality Complaint Findings Report | |

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| | | | x) Evaluation of Backflow Prevention and Cross Connection Control Program<br>y) Backflow Prevention Device Inspection and Certification Reports<br>z) Sanitary Survey Self-Assessment Reports for the Navy's Water Treatment and Distribution Systems | |
| 3.2.7 | Operating Records, Logs, Reports and Procedures | The Contractor shall prepare, submit and maintain operating records, logs and reports for in-process tracking of plant output characteristics.<br><br>The Contractor shall develop and update operating procedures to reflect current operating processes and Plant and Systems configuration. | Monthly Operating Records Report shall be submitted to the KO per Section F and shall include copies of daily operating logs.<br><br>The Contractor shall prepare, update, and post in clear view for operators, written Standard Operating Procedures (SOPs) per Section F.<br><br>The Contractor shall provide technical information and manuals for newly installed equipment from the manufacturer or installation contractor, per Section F. | All required operating records, logs, reports and procedures are maintained current and complete and applicable copies provided to the KO within the specified times. |
| 3.3 | Utility Infrastructure Condition Assessment Program (UICAP) Support | The Contractor shall perform UICAP services to ensure accurate asset inventory and condition information to properly support utility maintenance planning. | The Contractor shall perform UICAP services by maintaining an accurate asset inventory within MAXIMO and performing equipment condition assessments.<br><br>An initial utility asset inventory will be available in MAXIMO at start of full contract performance.<br><br>The Contractor shall participate in Risk Tool Workshops that involve discussion and face to face interviews about each utility asset. The Contractor shall provide the appropriate personnel familiar with the utility system for each commodity to participate in the Risk Tool Workshop. | MAXIMO asset data is complete and accurate.<br><br>Asset condition assessment is complete and accurate.<br><br>MAXIMO data is updated within the specified time. |

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| | | | The Contractor shall provide UICAP support based off of the NAVFAC P-603 and the NAVFAC UICAP Sustainment.<br><br>The Contractor shall utilize MAXIMO to record all conditions of utility assets and ensure that information is kept current with new assets added and replaced assets deleted or deactivated. As maintenance, repair or replacement is performed, Degradation Index (DI) is updated as well as information such as, but not limited to, installation date, manufacturer information and all fields listed in the Sustainment Guide Book.<br><br>Contractor shall utilize MAXIMO and the PM tool to create and implement PM plans for each utility asset or group of utility assets. PM plans shall be updated each time there is a change in the condition of the asset, such as a repair, replacement or change of component to any asset equipment. The Contractor shall prepare, submit and adhere to written operating procedures. The operating procedures prepared by the Contractor shall be based on the following, in order of precedence: (1) manufacturer's instructions, (2) industry standards and national codes, and (3) procedures outlined in NAVFAC publication such as the PWUC, and/or the UFC.<br><br>Utilities Assets descriptions are provided in the MAXIMO Utilities Assets file found in J-1601000-02. | |
| 3.3.1 | Inventory Management | The Contractor shall manage asset inventory to ensure asset information is | The Contractor shall maintain complete and accurate utilities asset descriptions to support UICAP. | Utility asset descriptions are accurate and |

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| | | available for effective management of utility systems. | The Contractor shall be responsible for utilities asset description updates including adding, deactivating, and updating utilities assets.<br><br>The Contractor shall notify the KO upon identification of utilities assets that are not included in the utility asset descriptions.<br><br>The Contractor shall ensure that utility assets are properly tagged.<br><br>Service Provider, Asset Information, Specification Information, and Characteristic Meter Reading Interfaces data shall be maintained using the fields in Annex 0200000 Spec Item 2.6.7 CMMS.<br><br>Informational note:<br>1. Asset and Specification Updates are specified in the Annex 0200000 Spec Item 2.6.7 CMMS.<br>2. Specification Attributes required for specifications are identified in the Sustainment Guide Book. | updated as required.<br><br>KO notified of utility assets not included in the listing of asset descriptions submitted as required. |
| 3.3.2 | Condition Assessment | The Contractor shall assess and document asset condition to ensure accurate condition information is available for utility maintenance planning. | The Contractor shall assess and document the condition of the utility assets.<br><br>All PMs that represent the most intrusive PM will include a section to collect updated condition information for the asset.<br><br>Condition ratings shall be maintained using the Characteristic Meter Readings fields specified in Annex 0200000 Spec Item 2.6.7 CMMS.<br><br>Utilize Maximo to record all conditions of utility assets and | Characteristic Meter Readings updated do not exceed 365 days.<br><br>Characteristic Meter Reading data fields required in MAXIMO are complete and accurate. |

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| | | | ensure that information is kept current with new assets added and replaced assets deleted or deactivated. As maintenance, repair or replacement is performed, Degradation Index (DI) is updated. | |
| 3.4 | Utility Control Systems (UCS) | The Contractor shall operate, maintain, and monitor Utility Control Systems (UCS) which includes Supervisory Control and Data Acquisition (SCADA) and Advanced Metering Infrastructure (AMI). | The Contractor shall comply with NAVFAC Marianas FRCS Cyber Security Requirements and perform Functional Administration requirements per Annex 2.<br><br>The Contractor shall provide the Cyberhygiene checklist quarterly, per Section F.<br><br>Monitor and respond to UCS system alarms and troubleshoot as necessary.<br><br>Perform readings and data retrieval for operational needs and to provide to the COR as needed.<br><br>Devise and implement manual and automated tests to verify software and configuration file integrity, and inspect and test UCS systems equipment and points to verify condition and reliability.<br><br>Diagnose and determine proximate cause of system faults (e.g. loss of connectivity, spurious data or signals, failed equipment).<br><br>Create and securely store backups of OT device configuration files.<br>Maintain and securely store spare critical UCS system components, as well as components from demolition and repair projects.<br><br>Calibrate all UCS system equipment as needed to ensure accurate readings and indications | Utility Systems are efficiently and safely supervised and controlled to meet demand requirements.<br><br>Full compliance with all instructions and guidance.<br><br>No valid customer complaints or concerns that are specific to utilities. |

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| | | | in accordance with industry standards and manufacturer recommendations, such as gauges, controls, and meters.<br><br>Initiate and track service requests with NAVFAC CIO for any Functional Administration duties requiring Information Technology (IT) support as described in J-0200000-08.<br><br>Initiate and track warranty actions for any faulty Operational Technology (OT) equipment or applications known to be covered by warranty. Perform and track repair actions for any faulty OT equipment or applications not covered under warranty.<br><br>Inspect new UCS system additions and repairs for workmanship and conformance to existing system, verify Contractor documentation, verify OT device and software configurations, and correct configurations as needed. Configure UCS system software to fully integrate new devices. | |
| 3.4.1 | Operation | The Contractor shall operate the UCS to efficiently and safely monitor and control the utilities systems to meet all demand requirements, 24 hours per day, seven days per week, throughout the contract period. | Operation consists of "watch-standing" or attendance type work by a sufficient staff of qualified persons during a specified time period to ensure safe, reliable, monitoring and control the utilities systems.<br><br>Operation of the UCS includes all equipment and components, such as, Computer Work stations, Programmable Logic Controllers, LAN Equipment, Printers, monitoring and control systems, and includes tasks, such as, Programmable Logic Controller (PLC) programming, configuration control, database administration, security, system back-ups, system integration, monitoring and regulation of | UCS equipment and components are efficiently, safely and continuously operated per operating criteria to meet demand.<br><br>Unscheduled interruptions are minimized such that utility systems demand is met.<br><br>Full compliance with all instructions and guidance. |

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| | | | equipment controls, maintaining operating records, logs, and reports, examination, lubrication and minor adjustment of equipment and system components.<br><br>UCS equipment and components shall be efficiently and safely operated per Contractor's SOP, ANSI, ASHRAE, NEC, UFC, and NFPA Standards, OMSI, and other specific operating manuals, procedures, and instructions. | No valid customer complaints or concerns that are specific to utilities. |
| 3.4.2 | Planned Maintenance (PM) and Repair | The Contractor shall develop and implement an Planned Maintenance (PM) and Repair Program for the UCS to ensure all equipment and components remain in optimum condition and sustain maximum life. | The Contractor shall develop and submit a Planned Maintenance (PM) Plan per Section F.<br><br>The PM shall include all equipment, and components of the UCS Operational Technology components (See Functional Administration, J-0200000-08).<br><br>PM and repair shall be performed per ANSI, ASHRAE, NEC, UFC, and NFPA Standards, OMSI, and equipment manufacturer's specifications and recommendations. All System malfunctions and breakdowns requiring repair or replacement shall have immediate response within one hour following Contractor discovery or Government notification and worked continuously to completion.<br><br>The Contractor shall submit a Maintenance and Repair History per Section F. | PM is accomplished per Contractor's incorporated Program and schedule.<br><br>Plans and reports are submitted as specified.<br><br>All repairs are responded to within one hour following Contractor discovery or Government notification and worked continuously to completion. |