EXHIBIT B
STATEMENT OF WORK

Title: TO-1 NLV Switchgear Design

Requisition Number: 23614

SOW Revision Number: 0

Prepared By: Stacey Villanueva

Requisition Date: 11/06/2025

TABLE OF CONTENTS

List of Acronyms

Acronym	Definition
ACM	Asbestos Containing Material
CAP	Contractor Acquired Property
CM	Construction Manager
EPP	Environmentally Preferable Products
ES&H	Environmental Safety and Health
GFE	Government Furnished Equipment
GFP	Government Furnished Property
LAO	Los Alamos Operations at Los Alamos, NM
LO	Livermore Operations at Livermore, CA
M&O	Maintenance and Operation
MSTS	Mission Support and Test Services, LLC
NFO	Nevada Field Office
NLV	North Las Vegas Facility
NNSA	National Nuclear Security Administration
NNSS	Nevada National Security Site
PULSE	Primary Underground Laboratory Subcritical Experimentation.
RCM	Radiological Control Manual
RGD	Radiation-Generating Devices
RPP	Radiation Protection Program
RSLA	Remote Sensing Lab at Andrews AFB, Maryland
RSLN	Remote Sensing Lab at Nellis AFB, North Las Vegas, NV
RWP	Radiological Work Permit
SME	Subject Matter Expert
SSSP	Site-Specific Safety Plan
STL	Special Technologies Lab at Santa Barbara, CA
STR	Subcontract Technical Representative

B-1 INTRODUCTION AND BACKGROUND

1. Introduction

This will be Task Order (TO) 1 under the Blanket Master Agreement (BMA) Design Bid Build NLV/RSLN. The scope of this TO 1 will be to Plan, Develop and Design a new Switchgear and Automatic Transfer Switch (ATS) Replacement at North Las Vegas (NLV).

2. Background

The existing switchgear was installed in the 1970's and the equipment is 20 years past its useful life cycle. Replacement parts are not readily available. Equipment reliability is poor and requires excessive preventative and corrective maintenance to operate. A major failure would be detrimental to the entire North Las Vegas (NLV) complex. Robust site power is vital to the Nevada National Security Sites (NNSS) mission objectives.

B-2 OBJECTIVE

MSTS requires the services of an experienced SUBCONTRACTOR to perform tasks associated with the Planning and Development, Discovery, and Design phases leading to delivery of documentation needed to solicit and award a construction contract for a modern power system at the NLV complex to replace existing transformers and switchgears.

B-3 DESCRIPTION OF WORK

The SUBCONTRACTOR shall provide technically qualified resources that work as a part of a team under the direct oversight of MSTS. The SUBCONTRACTOR shall furnish all necessary labor, technical and professional services, supervision, materials, tools, equipment, consumables, and payment of any applicable taxes to perform all operations necessary and required to perform the scope as directed by MSTS.

Unless otherwise approved, the SUBCONTRACTOR shall work in accordance with MSTS subcontract requirements.

This Task Order shall be for a base award to complete Planning and Development for Switchgear and ATS Replacement. The CONTRACTOR may execute the SUBCONTRACTOR to perform, one, both, or no Options. The Phase Gate Options are Option 1: Discovery, and Option 2: Design.

3.1 Base Award: Planning and Development

Based on the CONTRACTOR's Specification Functional Requirements Document (FRD) FRD-970-000 (attached), the SUBCONTRACTOR shall complete the following activities and deliverables over a 120-day period from date of award.

- SUBCONTRACTOR shall produce and deliver a conceptual design to replace and construct the NLV Switchgear and ATS.
- SUBCONTRACTOR shall produce a Risk Register that identifies risks that may be realized during design and construction (template provided).
- SUBCONTRACTOR shall develop and deliver a preliminary Work Breakdown Structure (WBS) and Associated Dictionary for design and construction of NLV Switchgear and ATS.
- SUBCONTRACTOR shall develop and provide an "Operational Requirements during Construction Document."
    - SUBCONTRACTOR will work with the CONTRACTOR to identify and document operational requirements during the execution of the construction phase, to the final design.
    - The purpose will be to document those operational requirements that may affect design. It is anticipated that this will require several meetings with the CONTRACTOR over the first 90 days of the 120 days allotted for base award.
- SUBCONTRACTOR shall participate in Task Order kick-off meeting with CONTRACTOR Procurement

Specialist (PS), Subcontractor Technical Representative (STR), and Project Manager (PM). Meeting shall occur within 7 days of the award.
- SUBCONTRACTOR shall participate in FRD meetings with CONTRACTOR operations and Subject Matter Expert (SME) personnel. This meeting will be to review and discuss the FRD (specification) operational impacts that may occur during the construction phase. This knowledge shall be incorporated into the design.
- SUBCONTRACTOR shall participate in Bi-weekly (every two weeks) status meeting with CONTRACTOR Project Manager and STR.
- Coordination with NVEnergy will be required for design input and any planned power outage.
- Power outage during construction shall be limited to six events, lasting no more than 48 hours preferably scheduled over the weekend.

3.2 Option 1: Discovery

The CONTRACTOR has completed the Discovery Phase of this project, but in the event additional information is required the CONTRACTOR may exercise Option 1.

- CONTRACTOR will provide the portion of Discovery completed, to the SUBCONTRACTOR.
- SUBCONTRACTOR to complete and validate information provided by CONTRACTOR.
- SUBCONTRACTOR to provide a document validating Discovery Phase, with information required to complete design of NLV Switchgear and ATS.
- SUBCONTRACTOR shall physically inspect the current NLV power distribution system for the purpose of validating information provided in FRD.
- SUBCONTRACTOR shall obtain and incorporate any additional information needed to effectively complete Option 2, Design.
- SUBCONTRACTOR shall satisfy requirements in Exhibit E, for any activity level work when craft resources are utilized.
- Single point of failure should be achieved in the design
- SUBCONTRACTOR shall to greatest extent possible, shall validate conduits for reuse or replacement.

SUBCONTRACTOR should assume the following

- The work under this Option 1 shall be performed over three consecutive days on Friday, Saturday and Sunday. SUBCONTRACTOR will coordinate with the STR to schedule site access.
- All labor to open panels, vaults, and manholes will be supplied by the SUBCONTRACTOR and labor categories will be in accordance with the Project Labor Agreement.
- If Option 1 is awarded the SUBCONTRACTOR can assume this option will occur approximately 60 days after base award, Planning and Development.
- A Site-Specific Safety Plan and Activity Level Work Control will be required as outlined in Exhibit E.
- Based on operational requirements, powering down circuits may be limited, and inspection may be restricted to visual inspection only.
- Power outage will need to be scheduled and limited in duration to 48 hours.
- If power outage is required, outage will need to be scheduled with STR and duration of each outage limited to 48 hours.
- During power outage backup generators will be required and shall be provided by CONTRACTOR. The SUBCONTRACTOR will be required to set up generators for operation.
- Highest voltage will be 12.470KV and ARC Flash consideration and clothing are required
- Continuous electrical power will be required throughout the complex during construction.
- Alternate power will be required over the entire complex. CONTRACTOR may supply limited onsite generators for selected sections of buildings, D-1, C-1, A-5, and B-7.

- Alternate power shall be required for remaining buildings to include A-18 and A-1.
- SUBCONTRACTOR shall consider potential to repair existing vaults. If repair is not feasible, shall design replacements.
- Power cables shall be cut, removed and replaced if not reusable.
- Radial Feeds will need to be re-installed in new vaults.
- Shall remove conduit from old vault and reinstall in new vault.

3.3 Option 2: Design

The SUBCONTRACTOR shall provide a design of a modern Power System at the NLV complex to replace existing infrastructure. SUBCONTRACTOR shall complete the design in accordance with Specification "Functional Requirements Document for CAPP 970 NLV Switchgear and ATS Replacement" of this Task Order and the BMA. Design shall address Operational Requirements during Construction Document generated in base award, Planning and Development.

3.3.1 SUBCONTRACTOR to provide required Deliverables:

- A Detailed Design shall be construction ready for Power Station Switchgear and ATS Replacement at the NLV.
- Specifications for all major end items specified in design to be delivered at 60% design to support long lead procurements.
- An Updated WBS for Construction
- A Baseline Construction Schedule
- A Bill of Material
- An Updated Risk Register
- A Definitive Construction Estimate based on Final Design
- SUBCONTRACTOR will be required to support construction effort and achieve Title 2 and 3.
- SUBCONTRACTOR shall support RFI's during construction phase and redline IFC drawings as required in a separate Task Order at time of construction.

3.3.2 General Design Requirements

- Design packages shall provide all necessary design details and data necessary to execute the design intent needed for a complete power system and include design construction drawings which illustrate the construction scope of work and support the required American Association of Cost Engineers (AACE) estimate class 2. Where applicable, design packages shall include preliminary design criteria, and recommendations for construction. Design packages shall also include relevant performance standards, construction specifications, layouts, drawings, commissioning and other documents.
- 60% design shall include specifications for long lead items, ready for CONTRACTOR to procure.
- The design basis shall include the functional and technical requirements, commissioning requirements, and alternative construction solutions available.
- Design documents shall comply with review recommendations made by CONTRACTOR. The SUBCONTRACTOR shall refer to technical and functional requirements, including but not limited to: Codes and Standards, Substitutions, Submittals, and Environmental, Safety and Health (ES&H) specifications.
- Deviations from requirements, regulations, codes, standards, and guidelines shall require advance authorization from CONTRACTOR in writing.

3.3.3 Assessments

- Visit project site if required to research site requirements for coordination of design efforts, perform field investigations, and meet with CONTRACTOR Technical Representatives and their teams.

3.3.4 Design Reviews

- SUBCONTRACTOR shall, at a minimum, submit for approval to CONTRACTOR at 30%, 60%, 90% and 100% design completion. SUBCONTRACTOR shall initiate the next phase of Design only upon receipt of CONTRACTOR written approval.

3.3.5 Design Delivery Phases

3.3.5.1 SUBCONTRACTOR shall complete the design and deliver the submittals to the STR, in accordance with the following design phases (the applicability and performance period for each phase, in calendar days, will be indicated by the SUBCONTRACT). CONTRACTOR will provide A deliverable list that will describe the level of information to be provided at each phase i.e. 30%, 60%, 90%.

3.3.5.2 Preliminary Design Submittal (Title I) - 30% complete- SUBCONTRACTOR shall include the following but not be limited to:

A. Plans to illustrate the preliminary structural system

B. Plans to illustrate the preliminary architectural layout

C. Plans to illustrate preliminary electrical systems

D. Plans to illustrate preliminary fire protection and detection systems, Fire watch may be required for any power outage.

E. Preliminary Paving/Grading/Drainage Plan

F. Preliminary Design Calculations, as applicable to support TO-1 requirements

G. One set of all documents and drawings in hard copy and PDFs of all documents and drawings shall be provided to the STR

H. Provide as-built drawings

3.3.5.3 CONTRACTOR shall review and comment on 30% submittal package with the option to conduct a comment review conference.

3.3.5.4 Intermediate Design Submittal (Title II) - 60% complete (if required in TO) - SUBCONTRACTOR shall include the following but not limited to:

A. Incorporate all comments approved at the 30% review

B. Identify long lead items (parts and material)

C. Preliminary structural, electrical, and mechanical calculations

D. Proposed equipment selections

E. Preliminary schedule and construction cost estimate

3.3.5.5 CONTRACTOR shall review and comment on 60% submittal package with the option to conduct a comment review conference.

3.3.5.6 Final Design Submittal (Title II) - 90% complete- SUBCONTRACTOR shall include the following but not limited to:

A. Incorporate all comments approved at 60% from previous reviews

B. Complete drawings ready for proposal and construction

C. Complete specifications ready for proposal and construction

D. Final design analyses/calculations for entire project

E. Detailed construction cost estimate (identify long lead items)

F. One set of all documents and drawings in hard copy and PDFs of all documents and drawings to be provided to the STR

3.3.5.7 CONTRACTOR shall review and comment on 90% submittal package with the option to conduct a comment review conference.

3.3.5.8 Final Submittal for Construction (Title II) -100% complete- SUBCONTRACTOR shall include the following but not limited to:

Note: All files shall be scanned and made free of any viruses prior to submittal.

Document Type	Printed/Stamped	Native File	PDF
Drawings	2 Sets D Size with Professional A/E seal	Yes with models/references	Yes
Specifications	2 Sets with Professional A/E seal	Yes MS Word/Excel	Yes
Spreadsheets	2 Sets	Yes MS Excel	Yes
3D Models/Scans	N/A	Yes for Bentley Suite of Applications	N/A
Calculations	2 Sets with Professional A/E seal	Yes with software specific native/source files i.e. HASS, Trane Trace, SKM, Mathcad…	Yes
Proposal Schedule	2 Sets	Yes	Yes
Construction Cost Estimate/Schedule	2 Sets	Yes	Yes
Review Comments	1 Set	Yes	Yes
Other Documents	2 Sets	Yes	Yes
Material Submittal Schedule	2 Sets	Yes	Yes

3.3.5.9 Following completion of each design phase, CONTRACTOR will perform a review of the submittals. CONTRACTOR shall review and approve with or without comments, each schedule item prior to the SUBCONTRACTOR initiating work on the subsequent phase. A design review conference at the STR option will be held after completion of this review and technical comments will be made to the SUBCONTRACTOR. The SUBCONTRACTOR shall be required to attend these conferences and take minutes and provide a copy of the comments with proposed resolutions within five (5) workdays of the meeting to the STR. Design conferences shall include but are not limited to working sessions and presentations for each phase submittal. The technical comments shall be incorporated into the design before completion of the next design phase. SUBCONTRACTOR may be required to make a presentation at each phase submittal at the discretion of the STR. The time and place of these conferences and presentations will be established by the STR.

Upon each phase of submittal, the CONTRACTOR shall status the submittal with the following designations:

Status Code	Notation
1	Work may proceed

2	Revise and resubmit – work may proceed subject to resolution
3	Revise and resubmit – work may not proceed
4	Review not required – work may proceed

Although work may proceed on receipt of a design submittal with a Code 2 notation, SUBCONTRACTOR must resolve the comments indicated, resubmit, and obtain a Code 1 notation before acceptance of the completed work. Receipt of a Code 1 or 2 does not relieve the SUBCONTRACTOR of any responsibility if technical errors are found in the deliverable.

- Additional reviews and/or submittals may be required for selected tasks to conform with CONTRACTOR obligations, such as compliance with DOE Order 413.3 review and submittal criteria. When these or other review schedules are required, they will be addressed in sufficient detail in the SUBCONTRACT to support resource, pricing and scheduling considerations.

3.3.4 References

The project's design compliance is guided by the project's Code of Record (COR). The SUBCONTRACTOR is required to provide a design that is compliant with the requirements of the reference documents listed in the COR. The CONTRACTOR as the "Code Authority" for the project, has adopted the codes and standards edition as listed in the COR, which must be used throughout design and construction.

The following references are used in preparing the project requirements and are available for the SUBCONTRACTOR to review.

• NNSS drawing # 024_080_0E_6001_Rev 0_11-10-08

• NNSS drawing # JS-024-080-E1

• NNSS drawing # JS-024-080-E2

1. Acceptance Criteria

Work products and services provided shall meet all applicable MSTS procedures for control and review of work products and pertinent regulatory requirements, as required by this subcontract and incorporated provisions.

The SUBCONTRACTOR shall complete work in accordance with Specification FRD-970-000 Functional Requirements Document for CAPP 970 NLV Switchgear and ATS Replacement. Acceptance shall be determined via compliance with this Task Order and the Master Agreement. The SUBCONTRACTOR shall ensure qualified personnel, including each respective engineering discipline, is assigned to perform the work, oversee Task Order performance, and assure the quality meets CONTRACTOR expectations. SUBCONTRACTOR shall ensure timely completion of Submittals as required by Appendix A, Submittal Register. All submittals provided under this Task Order shall be certified by a licensed Professional Engineer.

Base Award.

- The Conceptual design will explore potential solution(s) that meets the requirements of the FRD. It focuses on the big picture, transforming abstract ideas into a tangible vision. The primary goal is to find the most compelling and feasible design idea that meets project goals, user needs, and constraints like budget and technical feasibility.
- Risk Register will identify risks during design and construction, as detailed on the Risk Register template provided.
- The preliminary WBS should be well-structured and outline the logical execution of the project through construction.

- Operational Requirements During Construction Document shall be a thorough compilation of all operational factors identified during base award, to include discussions with CONTRACTOR SME's. **Option 1.**
- A report that documents the additional information obtained or validated during the execution of the Discovery option.

Option 2.

- The Detailed Design and additional deliverables for Power Station Switchgear and ATS Replacement will be produced as stated in the Task Order subcontract and associated Specifications.

B-4 PERSONNEL REQUIREMENTS

1. Training

The SUBCONTRACTOR and its personnel will be required to attend the following site-specific training in the course of this work scope.

NOTE: Site access may be delayed until training is complete or renewed. The SUBCONTRACTOR shall contact the Subcontract Technical Representative (STR) to coordinate scheduling of training. See Section B-6, item 4, *Badging*.

Base Award - Planning and Development

DESCRIPTION	DURATION	FREQUENCY
NNSS Site Access Safety Orientation (1E00W102)	0.5 Hours	One time only
Work Location Emergency Response Plan, Including Evacuation Alarms and Accountability (1REM050000)	3.0 Hours	One time only
Initial Security Briefing. DOE O 470.4B, "Safeguards and Security Program" (1S000110) as well as DOE O 470.4B Chg. 3 (Ltd.Chg.)	1 Hours	One time only
Cyber Security Qualification Program (CYBER01)	1 Hours	One time only

Option 1 – Discovery

DESCRIPTION	DURATION	FREQUENCY
NNSS Site Access Safety Orientation (1E00W102)	0.5 Hours	One time only
Work Location Emergency Response Plan, Including Evacuation Alarms and Accountability (1REM050000)	3.0 Hours	One time only
Initial Security Briefing. DOE O 470.4B, "Safeguards and Security Program" (1S000110) as well as DOE O 470.4B Chg. 3 (Ltd.Chg.)	1 Hours	One time only
Cyber Security Qualification Program (CYBER01)	1 Hours	One time only
Integrated Work Control Training (IWCP001)	1 Hours	One time only

Option 2 - Design

DESCRIPTION	DURATION	FREQUENCY
NNSS Site Access Safety Orientation (1E00W102)	0.5 Hours	One time only
Work Location Emergency Response Plan, Including Evacuation Alarms and Accountability (1REM050000)	3.0 Hours	One time only
Initial Security Briefing. DOE O 470.4B, "Safeguards and Security Program" (1S000110) as well as DOE O 470.4B Chg. 3 (Ltd.Chg.)	1 Hours	One time only
Cyber Security Qualification Program (CYBER01)	1 Hours	One time only

The SUBCONTRACTOR shall maintain training records for their personnel and ensure all required training is completed prior to start of work. Additionally, as soon as practical after award, the SUBCONTRACTOR shall submit a badge request for personnel required under the various releases so that they may be scheduled for training and medical evaluation so that crews will be eligible for work on site.

2. Qualifications, Licensing and Certifications

The SUBCONTRACTOR shall ensure that its personnel meet and maintain the appropriate training, qualifications, licensing, and certification requirements to perform the work as specified in this Statement of Work (SOW). The SUBCONTRACTOR shall provide appropriately trained and qualified staff to perform the type of work in accordance with the specifications, exhibits, and other documents, which are made by reference, and part of this SOW. Additionally, the SUBCONTRACTOR shall perform work in accordance with the specifications, exhibits, and other documents, which are made by reference, and are a part of the SOW.

3. Key Personnel Qualifications

The Subcontractor shall submit a resume along with any documented applicable qualifications/certifications for approval prior to the Subcontractor being authorized to proceed with work. The Subcontractor shall submit for approval any changes in the Key Personnel representative assignments for approval.

SUBCONTRACTOR is required to provide the resumes for the position specified below for each Option.

4.3.1 Base Award – Planning and Development

CONTRACTOR assumes that the key personnel are those that will be overseeing the development of the detailed design for this task order. If this is not accurate the SUBCONTRCTOR shall submit the resumes of those individuals that will be overseeing the design with an explanation as to why they are different than stipulated in the BMA. The minimum requirement shall be:

Project Engineer/Project Manager

- Responsibilities
    - Engineering team leadership and development
    - Manage the Task Order requirement and provide deliverable/submittals
    - Provide oversight
- Qualifications
    - Professional Engineer with 8 years of experience in management, with a focus on Project Management
    - Bachelor’s degree in engineering, or architecture or similar
    - Professional Engineer (PE) License

Lead Electrical Engineer

Responsibilities

- Lead the design and development of electrical systems and components
- Collaborate with cross-functional teams to integrate electrical designs
- Ensure compliance with industry standards and regulations
- Review and approve technical drawings, specifications and documentation
- Conduct feasibility studies, risk assessments and cost estimations

- Qualifications
  - Bachelor's degree in electrical engineering or a related field
  - 8 years of experience in electrical engineering
  - Licensed Engineer

4.3.2 Option 1 – Discovery

Project Engineer/Project Manager

- Responsibilities
  - Engineering team leadership and development
  - Manage the Task Order requirement and provide deliverable/submittals
  - Provide oversight
- Qualifications
  - Professional Engineer with 8 years of experience in management, with a focus on Project Management
  - Bachelor's degree in engineering, or architecture or similar
  - Professional Engineer (PE) License

Site Supervisor

- Responsibilities
  - At all times during performance of this Subcontract and until the work is completed and accepted, the SUBCONTRACTOR'S superintendent shall directly supervise and oversee the Work at the worksite or assign and have at the worksite another qualified representative of the SUBCONTRACTOR (in the superintendent's temporary absence) who is satisfactory to the Procurement Representative and who has authority to act for the SUBCONTRACTOR.
- Qualifications
  - 10 years of experience in construction
  - 5 years of experience as superintendent

Safety Representative

- Responsibilities
  - At all times during performance of this Subcontract and until the work is completed and accepted, the SUBCONTRACTOR'S Safety Representative shall directly oversee the safety at the worksite.
- Qualifications
  - A degree in Occupational Safety or;
  - Hold the designation of a Certified Safety Professional or;
  - Hold the designation of an Associate Safety Professional with a minimum of 1-year documented safety experience.
  - Occupational Health and Safety Technician or Construction Safety and Health Technician certification in addition to 3 years of experience in the field performing safety duties.

- Documented 5 years full-time safety experience (100% safety work). List of projects and description of duties where person was a full-time safety professional.
- Specialized training for specialized activities (i.e., High risk, diving, high voltage).

4.3.3 Option 2 – Design

Project Engineer/Project Manager

- Responsibilities
  - Engineering team leadership and development
  - Manage the Task Order requirement and provide deliverable/submittals
  - Provide oversight
- Qualifications
  - Professional Engineer with 8 years of experience in management, with a focus on Project Management
  - Bachelor's degree in engineering, or architecture or similar
  - Professional Engineer (PE) License

Lead Electrical Engineer

Responsibilities

- Lead the design and development of electrical systems and components
- Collaborate with cross-functional teams to integrate electrical designs
- Ensure compliance with industry standards and regulations
- Review and approve technical drawings, specifications and documentation
- Conduct feasibility studies, risk assessments and cost estimations

- Qualifications
  - Bachelor's degree in electrical engineering or a related field
  - 8 years of experience in electrical engineering
  - Licensed Engineer

Other Key Personal may be identified by SUBCONTRACTOR

B-5 TECHNICAL REQUIREMENTS

The SUBCONTRACTOR shall perform in accordance with the terms and conditions of this contract, MSTS internal policies and procedures, and quality assurance provisions, including safety programs, laws, orders, permits, rules, confidentiality of information and intellectual property safeguards. In addition, the SUBCONTRACTOR shall perform work in accordance with the national codes, specifications, drawings, exhibits, and other documents, which by reference are made a part of the SOW.

Inspection of the work required by governmental agencies shall be arranged by the STR. The SUBCONTRACTOR shall request inspections through the STR, after the work is ready for inspection.

1. Specifications

SPEC NUMBER	TITLE	REV	PAGES
FRD-970-000	CUI – CAPP 970 NLV Switchgear and ATS Replacement FRD Rev 0	0	23

2. Drawings

DRAWING NUMBER	TITLE	REV	PAGES
024_080_0E_6001	024_080_0E_6001	0	2
JS-024-080-E01	JS-024-080-E01_eDCRO	0	1
JS-024-080-E02	JS-024-080-E02_eDCRO	0	1

B-6 PLACE OF PERFORMANCE

1. Delivery Location

Delivery location will be NA

2. Work Location

Majority of work will be at SUBCONTRACTOR location. When required site location will be at North Las Vegas Facility – 2621 N. Losee Rd. Building N. Las Vegas, NV 89030
For any work performed on the NNSS site or in an MSTS controlled facility, the provision of the On-Site services shall apply to this subcontract.
Work performed outside normal operating hours shall be coordinated and/or approved through the STR and/or the Procurement Specialist prior to performing the work.

3. Site Access and Work Hours

MSTS personnel at the NNSS work a standard 4/10 schedule. The standard work week consists of ten (10) hours of work between 6:00 a.m. and 4:30 p.m. with one-half hour designated as an unpaid period for lunch, Monday through Thursday.

Onsite work required to be performed outside normal operating hours shall be coordinated and/or approved through the STR and/or the Procurement Specialist prior to performing work.

4. Badging

Any onsite work shall be coordinated with the STR in accordance with the SOW and site-specific training requirements. The SUBCONTRACTOR shall wear a MSTS issued security badge identifying themselves. The SUBCONTRACTOR shall wear a Contractor issued security badge identifying themselves. A minimum of two (2) working days advance notice is needed for site badging. SUBCONTRACTOR employees shall be required to submit to vehicle searches and not personally carry or transport certain prohibited articles (ProhibitedControlledArticlesPolicy.pdf).

B-7 CLEARANCE REQUIREMENTS

The following access authorization or clearance requirements are required.

1) Check all that apply:

☒ No security clearance; unclassified work

☐ DOE L

☐ DOE Q

☐ HSPD-12 PIV Credential

2) If applicable, add any or all parts of the following statement security qualifications:

☐ The SUBCONTRACTOR shall have the ability to obtain a U.S. Department of Energy (DOE) facility security clearance and have personnel capable of obtaining a Q-type or L-type security clearance.

☐ Q- or L-type security clearance is required for all SUBCONTRACTOR personnel having access to classified information or special nuclear material when performing such work.

☐ A corresponding level of security clearance from another federal agency may be applicable if approved by the MSTS and DOE.

☒ N/A

B-8 SPECIAL REQUIREMENTS

8.1 Personal Protective Equipment

SUBCONTRACTOR shall be responsible for providing Personal Protective Equipment (PPE) for all SUBCONTRACTOR personnel visiting the site(s). PPE shall be suitable for the working environment of the project

Minimum PPE is defined as:

- Steel-Toed boots (safety shoes).
- Ear Protection.
- Hard hat.
- Safety glasses.
- Hi Vis Vest.

8.2 Qualifications, Licensing, Certifications

Professional Engineers should have at least a bachelor's degree with 8 years of experience and licensed in the state of Nevada.

Safety Representative shall demonstrate valid Certified Safety Certification with 8 years of experience and licensed in the state of Nevada.

1. Government Assets

Use of Government Vehicles	
☒	There is **NO** anticipated need for any SUBCONTRACTOR employees to use a Government-furnished vehicle in the performance of this SOW. The SUBCONTRACTOR's employees, therefore, are specifically prohibited from driving any Government-furnished vehicles under the performance of this SOW unless this SOW is formally modified by the parties and the employee(s) will present a valid driver's license to the STR for review.

☐	One or more SUBCONTRACTOR employees will have access to Government-furnished vehicles while performing this SOW.
Government Property	
☒	Government Property **NOT** anticipated to be furnished to or acquired by the SUBCONTRACTOR under this SOW.
☐	Pursuant to Federal Acquisition Regulation (FAR) 52.245.1 – Government Property, the following Government-owned property will be furnished to the SUBCONTRACTOR. The SUBCONTRACTOR shall be responsible for managing the Government-Furnished Property (GFP) below and/or Contractor-Acquired Property (CAP) as required in accordance with FAR 52.245-1. A list of the property to be furnished to the SUBCONTRACTOR can be found in Appendix Choose an item, along with any special technical and/or handling instructions.

2. Quality Assurance (QA)

The work as described has been identified to be.	
☐	**SAFETY CLASS/SAFETY SIGNIFICANT SERVICES AND/OR COMMODITIES (NUCLEAR/RADIOLOGICAL)** This PO is related to items or services used in support of the nuclear and/or radiological mission(s) of the Nevada National Security Site, therefore: The SUBCONTRACTOR shall implement and maintain a Quality Assurance (QA) program in accordance with at least one the following quality assurance criteria and requirements: • ASME NQA-1 (2015) quality assurance requirements for nuclear facility applications • ASME NQA-1 (2008 with 2009 addenda) quality assurance requirements for nuclear facility applications • Equivalent program authorized in writing by the contractor's quality assurance organization In addition, the SUBCONTRACTOR shall be responsible for: **Price Anderson Amendments Act (PAAA)** The item or service identified in the purchase order agreement is being procured by a contractor to the Department of Energy (DOE)/National Nuclear Security Administration (NNSA). This item or service is intended to be used in the performance of activities that (1) prevent or mitigate radiological or harm to the worker, the public or the environment or (2) provide a healthful and safe workplace for DOE/NNSA contractor personnel. Therefore, the SUBCONTRACTOR is responsible for assuring that the items or services provided under this purchase agreement meet the stated requirements.
☒	**GENERAL SERVICES AND/OR COMMODITIES** This subcontract is for items or services that support the mission(s) of the Nevada National Security Sites, therefore: **SUSPECT/COUNTERFEIT ITEMS REQUIREMENTS**: The SUBCONTRACTOR will take positive measures to ensure that only new, unused equipment/material from acceptable sources is provided under this subcontract. Notwithstanding any other provisions of this subcontract, should any suspect/counterfeit items or components be found within or on this equipment

	during contractor receipt inspection, SUBCONTRACTOR shall, at its expense, promptly replace such items or components. These requirements shall be flowed down to all levels of subcontractors as they pertain to this procurement activity.

B-9 ENVIRONMENTALLY PREFERABLE PRODUCTS

MSTS is required by the U.S. Department of Energy to purchase Environmentally Preferable Products (EPP) (also known as green or sustainable purchasing) and are also required to flow those procurement requirements to their SUBCONTRACTOR. When designing materials and/or supplying materials to be used onsite as part of a subcontract SOW, those materials must meet these same requirements.

The following is a list of EPP types that must be used if they are available:

- **Products with Recycled Content.** MSTS supports efforts that reduce or eliminate environmental hazards, conserve environmental resources, minimize life-cycle cost and liabilities. Towards the end, the acquisition cycle is viewed as an important key in understanding what is brought onto the Site as well as identifying what can be reused/recycled. Focus is directed on recycled-content, biobased-content, ozone-depleting substances, and other environmental impacts. Specific additional clauses are included in this solicitation that address potential requirements and preferences based on the nature of the item being considered for purchase.
- **Water Efficient Plumbing Products**. When purchasing commercially available, off-the-shelf water consuming products, products must meet EPA's WaterSense standards (http://www.epa.gov/watersense).
- **Non-Toxic or Less Toxic Alternatives**
- **Green Certified Products**. (e.g., Design for Environment, Green Seal)
- **Bio-Based Products**. MSTS will give preference to acquiring Department of Agriculture designated biobased products. For more information to this program, see www.biopreferred.gov.
- **Energy Efficient Products**.
    - EPA Energy Star® When purchasing commercially available, off-the-shelf energy-consuming products, products must be Energy Star rated (www.energystar.gov).
    - Federal Energy Management Program designated products, When purchasing commercially available, off-the-shelf energy-consuming products, products must use no more than one watt of standby power as defined and measured by International Electrotechnical Commission (IEC) code 62301 or otherwise met FEMP specifications for low standby power consumption. If FEMP has not specified a standby power level for a product category, the item shall be the lowest standby power consumption available.
- **Energy Efficient Electronics**. When purchasing the following products, EPEAT ratings will apply:
    - Desktop and Notebook Computers – must meet the EPEAT silver rating or higher
    - Displays, Monitors, Integrated Desktop Computers, Workstation Desktops, Thin Client, Workstation Notebooks, and/or Tablet Notebooks – must meet the EPEAT silver rating or higher
    - Fax Machines, Multifunction Devices, and Printers – must meet the EPEAT bronze rating or higher
    - Copiers and Digital Duplicators – must meet the EPEAT silver rating or higher

- **Reuse of Leased IT Electronic Equipment** In accordance with DOE Order 436.1, Departmental Sustainability, MSTS is striving to reduce or eliminate environmental hazards, conserve environmental resources, minimize life-cycle cost and maximize operational sustainability through the incorporation of electronics stewardship practices thereby minimizing the economic and environmental impacts of managing toxic by-products and hazardous wastes generated in the conduct of site activities. Therefore, MSTS requires that at the end of the lease period, the equipment is to be reused, refurbished, donated, or recycled using environmentally sound management practices.

B-10 MEETINGS

After subcontract award, a Subcontract Kickoff Meeting may be requested, which may be a conference call, an internet meeting, or a meeting to be held at MSTS. The time, date, and agenda for the meeting will be provided to the SUBCONTRACTOR by MSTS.

The SUBCONTRACTOR shall interface with various MSTS (and other) organizations through MSTS' Procurement Specialist (or designated Subcontract Technical Representative (STR) for in-scope work), as required, or at points and frequency determined by the Procurement Specialist.

MSTS will issue meeting notices and prepare an agenda and minutes for each meeting addressed in this Section. When applicable, minutes will identify action items, assigned actioner, and due dates.

The purpose of the meetings is the exchange of work-related information. The person or persons designated by the SUBCONTRACTOR to attend all meetings shall have all required authority to make decisions and commit SUBCONTRACTOR to technical decisions made during meetings.

FREQUENCY	DURATION	TITLE	DESCRIPTION / PURPOSE
FREQUENCY	DURATION	TITLE	DESCRIPTION / PURPOSE
BASE AWARD			
Once	1 hour	Post Award Kick-Off	Introductions
Once	2 hours	FRD Review	Review and discuss FRD
30% 60%, 90%, 100%	1 Hour	Design Milestone	Review milestones
Bi-weekly	1 hour	Progress Review	Review progress
Option 1			
Once	1 hour	Post Award Kick-Off	Introductions
Once	2 hours	FRD Review	Review and discuss FRD
Bi-weekly	1 hour	Progress Review	Review progress
Option 2			
Once	1 hour	Post Award Kick-Off	Introductions
Once	1 hour	Initial Design Meeting	Project Specifics
30% 60%, 90%, 100%	1 Hour	Design Milestone	Review milestones
Bi-weekly	1 hour	Progress Review	Review progress

B-11 SUBMITTALS

If the SOW requires the submittal of SUBCONTRACTOR Information, the following apply:

- The following items shall be submitted to the submittal e-mail address(es) as indicated on Appendix A , *Submittal Register*, identifies deliverables due during the execution of this subcontract and the recipient.

- The SUBCONTRACTOR shall include the Procurement Specialist and STR on the transmittal.
- Subcontractor information shall be submitted in either hard copy or electronic format (If electronic, it must be viewable using either Microsoft® Windows®, Microsoft® Office, or Adobe® Acrobat® software).
- Submittals should consist of any information, documentation, data, etc. which will require review/approval or used as verification or acceptance of work completed.

B-12 DELIVERABLES

Base Award.

- A conceptual design to replace and construct the NLV Power station. (PM/DE)
- A Risk Register that identifies risks that may be realized during design and construction (PM)
- A preliminary Work Breakdown Structure (WBS) and Associated Dictionary for design and construction of the NLV Power Station
- An Operational Requirements During Construction Document

Option 1.

A Discovery Completion document.

Option 2.

- A Detailed Design which is construction ready for Power Station Switchgear and ATS Replacement at the NLV, to include all calculations and Technical Specifications/Data Sheets. (PM/DE)
- List and identify all long lead items at 60% design
- Specifications for all major end items and long lead items to be specified in design and delivered at 60% design (PM/DE)
- An Updated WBS for Construction
- A Baseline Construction Schedule
- A Bill of Material
- An Updated Risk Register
- A class 3 Construction Estimate based on Final Design

B-13 APPENDIX

APPENDIX NUMBER	*TITLE*	*REV*	*PAGES*
Appendix A	Submittal Register	*Rev #0*	*Pages*

The SUBCONTRACTOR shall meet the required schedule and provide the documents specified in accordance with the following submittals.

APPENDIX A
SUBMITTAL REGISTER

Section A: Purchase Order/Subcontract Information			
Subcontractor Name:	*insert subcontractor name or TBD during RFP activities*	SOW Title:	*Insert MSTS SOW Title*
Purchase Order and Release Number:	*Subcontract release number*	Requisition Number:	*Insert requisition #*

Section B: Submittal Delivery Requirement
Submittals shall be electronically, unless otherwise noted, to: *Procurement Specialist; Insert email address and Subcontract Technical Representative; Insert email address* *Insert any special notes. DO NOT INCLUDE internal distribution notes.*

Section C: Submittal Requirement Details					
NO.	TITLE	REFERENCE	DUE DATE / FREQUENCY	REVIEWED BY	COMMENTS
001.	SUBCONTRACTORS Authorized Representative	Exhibit B	Prior to start of work	ADM	When changes occur
002.	Certifications	Exhibit B	NLT 10 calendar days after date of award	ADM STR	TO specific – defined SUBCONTRACTOR Scope
003.	Test Reports	Exhibit B	NLT 10 calendar days after completion of tests	ADM STR	TO specific – defined SUBCONTRACTOR Scope
004.	Comments on Conceptual Design Package	Exhibit B	14 calendar days after Notice to Proceed (NTP) for a design TO	ADM STR	
005.	Revised Design Deliverables Schedule	Exhibit B	30 days after issuance of a design TO	ADM STR	

APPENDIX A
SUBMITTAL REGISTER

Section A: Purchase Order/Subcontract Information			
Subcontractor Name:	*insert subcontractor name or TBD during RFP activities*	SOW Title:	*Insert MSTS SOW Title*
Purchase Order and Release Number:	*Subcontract release number*	Requisition Number:	*Insert requisition #*

Section B: Submittal Delivery Requirement
Submittals shall be electronically, unless otherwise noted, to: *Procurement Specialist; Insert email address and Subcontract Technical Representative; Insert email address* *Insert any special notes. DO NOT INCLUDE internal distribution notes.*

Section C: Submittal Requirement Details

NO.	TITLE	REFERENCE	DUE DATE / FREQUENCY	REVIEWED BY	COMMENTS
006.	Design Development Submittal 30%	Exhibit B	Per approved SUBCONTRACTOR Schedule, in TO	ADM STR	All documents, drawings, and specification required
007.	Design Development Submittal [60%]	Exhibit B	Per approved SUBCONTRACTOR Schedule, in TO	ADM STR	All documents, drawings, and specification required
008.	Design Development Submittal [90%]	Exhibit B	Per approved SUBCONTRACTOR Schedule, in TO	ADM STR	All documents, drawings, and specification required
009.	Final Design Documentation Submittal [100%]	Exhibit B	Per approved SUBCONTRACTOR Schedule, in TO	ADM STR	All documents, drawings, and specification required
010.	Construction Execution Plan	Exhibit B	Within 14 days of Task Order award.	ADM STR	With a detailed construction scheduled
011.	Subcontract Construction Schedule	Exhibit B	Within 10 days after SUBCONTRACTOR receipt of a TO.	ADM STR	

APPENDIX A
SUBMITTAL REGISTER

Section A: Purchase Order/Subcontract Information			
Subcontractor Name:	*insert subcontractor name or TBD during RFP activities*	SOW Title:	*Insert MSTS SOW Title*
Purchase Order and Release Number:	*Subcontract release number*	Requisition Number:	*Insert requisition #*

Section B: Submittal Delivery Requirement
Submittals shall be electronically, unless otherwise noted, to: *Procurement Specialist; Insert email address and Subcontract Technical Representative; Insert email address* *Insert any special notes. DO NOT INCLUDE internal distribution notes.*

Section C: Submittal Requirement Details

NO.	TITLE	REFERENCE	DUE DATE / FREQUENCY	REVIEWED BY	COMMENTS
012.	Environmental, Safety, and Health Plan	Exhibit E	Initial submittal NLT 10 calendar days from award / Must be approved prior to start.	STR ADM	Site-Specific Plan(s)
013.	Hazard Communication Program	Exhibit E	No later than 10 calendar days from Notice to Proceed prior to start of Work	STR ADM	Prior to start of Work
014.	Safety Data Sheet(s)	Exhibit E	NLT 10 days from NTP	STR ADM	Prior to start work
015.	Safety and Personnel Report	Exhibit E	Monthly, NLT 28th day of each month after issuance of TO	STR ADM	Provided using CONTRACTOR Form FRM-1253, “SUBCONTRACTOR HOURS”
016.	Progress Payment layout	Exhibit A	30 days after award – Refer to the Consideration Schedule	ADM STR	
017.	Schedule of values	Exhibit G	No later than 10 calendar days from date of award	ADM STR	Prior to the start of Work
018.	Certified Payrolls	Master Agreement	Weekly by the Subcontractor and all on-site Lower-Tier Subcontractors	ADM	Both paper and electronic copies are required

APPENDIX A
SUBMITTAL REGISTER

Section A: Purchase Order/Subcontract Information			
Subcontractor Name:	*insert subcontractor name or TBD during RFP activities*	SOW Title:	*Insert MSTS SOW Title*
Purchase Order and Release Number:	*Subcontract release number*	Requisition Number:	*Insert requisition #*

Section B: Submittal Delivery Requirement
Submittals shall be electronically, unless otherwise noted, to: *Procurement Specialist; Insert email address and Subcontract Technical Representative; Insert email address* *Insert any special notes. DO NOT INCLUDE internal distribution notes.*

Section C: Submittal Requirement Details

NO.	TITLE	REFERENCE	DUE DATE / FREQUENCY	REVIEWED BY	COMMENTS
019.	Quality Assurance Program Plan	Master Agreement	Due with any revisions to the program	STR ADM	
020.	Collective Bargaining Agreement (Letter of Assent)	Master Agreement	No later than 10 calendar days from award	ADM	Prior to the start of Work
021.	Insurance Certificates	Master Agreement	NLT 10 calendar days from award	ADM	
022.	Payment & Performance Bonds	Master Agreement	NLT 10 calendar days from award /Prior to start of work	ADM	SF25 & SF25A
023.	Organizational Conflicts of Interest (OCI) Certification	Master Agreement	With proposal and prior to addition of any lower-tier Subcontractors	ADM	
024.	Subcontract Release Statement	Exhibit C Master Agreement	Following completion of work prior to final payment for each TO	ADM	Provided using CONTRACTOR FRM-2206, “Subcontract Release Statement”
025.	Form 2062 – SUBCONTRACTOR MEDICAL RELEASE	Exhibit E	Prior to start of work	STR	○ The forms will be provided to the SUBCONTRACTOR