

**VA701-12-R-0108 Amendment A00004 – ATTACHMENT 3:  
NARRATIVE OF CHANGES TO RFP DOCUMENTS**

**A. STATEMENT OF WORK (Appendix A) CHANGES**

**I. Delete the following item in paragraph 2.1**

Site 2: Parking Lots 15, 17, 18, 20 (OPTION)

**II. Replace the following sentence in paragraph 2.1:**

Contractors shall propose a minimum system size of 100 kW (DC) for all sites combined.

**With the following with the following sentence:**

Contractors shall propose a minimum system size of 100 kW (DC) for the site indicated.

**III. Delete the following item in paragraph 2.3**

SITE 2: PARKING LOTS 15, 17, 18, 20 12 (OPTION)

The contractor shall construct car-port style parking structure PV arrays. Site 2 parking lots are approximately 62,000 square feet and include both a patient/employee parking area. The parking lot is composed of multiple parking aisles of various lengths. The center aisles in each of the lots contain face-to-face double parking (40 feet wide) and the outer aisles contain single parking (18 feet wide) on the perimeter.

**IV. Replace the following section in paragraph 2.3:**

The final system configuration shall allow automatic operation without operator intervention. System design and equipment specifications shall minimize maintenance requirements. It is the intention of VA to connect this PV metering system into a nation-wide meter data aggregation system in the future. Metering systems which facilitate interconnection with this data aggregation system will be preferred. Meters such as the ION 7650/7550 for AC or similar are recommended.

The PV metering system shall be connected into the VA Corporate-Wide Advanced Utility Metering Database (proprietary Schneider System). Metering systems which interconnect with this system shall be required. Meters such as the Power Logic ION units for AC or similar are recommended. Campus has an existing metering system in place which has an interconnection with the VA National metering system. The contractor will be responsible for interconnecting with the existing system for data transfer. The system shall have Main Metering capabilities for each individual site.

**With the following section:**

The final system configuration shall allow automatic operation without operator intervention. System design and equipment specifications shall minimize maintenance requirements.

The PV metering system shall be configured for connection to the VA Nationwide Metering System (proprietary Schneider System). Metering systems which can be interconnected with this system without additional hardware or software modifications shall be required. Meters such as the ION 7650/7550 for AC or similar are recommended. Campus has an existing metering system in place which is interconnected with the VA Nationwide Metering System.

The system shall have Main Metering capabilities for the site indicated.

**V. Replace the following bulleted item in paragraph 2.3 (starting at “Metering system shall:”)**

- Be capable of integration with the VA Corporate-Wide Advanced Utility Metering Database located at the Schneider Electric facility located in St. Louis, Mo. Contractor will be responsible of coordinating this effort with the Successful Contractor awarded the contract for integrating existing meters at all VA facilities nationwide. That successful contractor will be identified prior to installation of metering system.

**With the following bulleted item:**

- Be capable of integration with the VA Corporate-Wide Advanced Utility Metering Database located at the Schneider Electric facility located in St. Louis, Mo.

**VI. Insert the following after last bullet of paragraph 2.3 at “Metering system shall:”**

- Provide remote monitoring of real-time system performance data (as outlined above) on a web-based portal. All service fees associated with data collection, transmission, monitoring, and hosting shall be borne by the contractor for a period of five years from system startup.

**VII. Delete Item 10 in paragraph 2.3 at “Combiner Box Metering system shall:”**

10. Report of Printed Circuit Board (PCB) Temperature

**VIII. Replace item 4, last sentence, in paragraph 2.3 (starting at “The Contractor shall:”)**

Contractor shall pay any application fee(s) for SWEPCO rebate(s) and will be reimbursed after completion of the project.

**With the following sentence:**

When directed by the VA, contractor shall pay any application fee(s) for SWEPCO rebate(s) and will be reimbursed after completion of the project.

**IX. Replace item 11, last sentence, in paragraph 2.3 (starting at “The Contractor shall:”)**

Panels shall be part on the CEC list of approved modules.

**With the following sentence:**

Panels shall be part on the California Energy Commission (CEC) list of approved modules.

**X. Replace item 12, last sentence, in paragraph 2.3 (starting at “The Contractor shall:”)**

Warranty shall start on the date of Substantial Completion.

**With the following sentence:**

Warranty shall start on the date when the Government accepts the system after final test reports are approved.

**XI. Insert the following section in paragraph 2.4 Technical Requirements.**

Contractor shall assess existing site lighting by measuring light levels prior to the removal of any existing lighting. For areas impacted by the removal of existing lighting, additional lighting shall be provided in areas where light levels (after canopy lighting installation) will less than required by VA Design Standards, regardless of canopy coverage.

**XII. Insert the following, in its entirety, after paragraph 2.7b:**

**3.0 FORMAL REJECTION AND ACCEPTANCE OF DELIVERABLES**

The Government will have fifteen (15) business days to review each document and provide feedback/comments. The contractor shall have five (5) business days to incorporate comments. After delivery of the final document with comments the Contractor will be notified within ten (10) business days whether the document is accepted. Delivery of the final document with incorporated comments shall not constitute acceptance by the Government.

**3.1 Deliverables and Tasks**

Satisfactory completion of the contract shall be measured by completion of the listed deliverables and tasks identified. Completion of deliverables shall remain within the scope of the approved Statement of Work.

**4.0 DELIVERY SCHEDULE/PERIOD OF PERFORMANCE**

**Period of Performance:** 300 calendar days from Notice- to- Proceed to complete and commission installation. Period of performance to include, but not limited to: post-award/installation review; submittal process; installation phase and punch-list and close out.

**4.1 Deliverables – Submittals – Schedules:**

**4.1.1** Contractor shall submit the following installation documentation and all catalog material to the COR for approval *before a notice to proceed is issued* by the Contracting Officer. Submissions shall include:

1. Provide a schedule that demonstrates complete fulfillment of all contract requirements. The schedule shall include milestone dates, including equipment ordering and delivery dates, activity start and end dates, man-loading estimates, and activity description. The schedule shall be submitted as part of the design and shall be approved prior to receiving the notice to proceed. An updated schedule shall be submitted prior to progress meetings as work progresses.
2. Contractor shall submit all permits associated with the installation project prior to receiving notice to proceed.

**4.1.2** The following submittals shall be approved *prior to ordering any equipment*:

1. Manufacturer's complete technical literature for the selected panel, including net peak capacity;
2. Inverter, including required DC voltage and how the proposed PV arrays will operate within the Maximum Power Point (MPP) of the inverter at different cell temperatures using Little Rock, AR weather data.

**4.1.3** Individual panels shall be tested *prior to installation on mounts*. Record open-circuit voltage and short-circuit current for each panel. Submit these test results to the COR.

**4.1.4** Provide 50% and 100% installation designs for approval. All final installation designs shall be reviewed and approved by the government COR. The drawing submissions will be CAD-based and include specific locations, routings, etc typical of an installation submission.

**4.1.5** After award Contractor shall submit:

1. **Performance and Payment Bonds** – Due to VA 10 Calendar Days after award.
2. **Proof of Insurance** – Due to VA 10 Calendar Days after award.
3. **Submit quality control, safety, and environmental plans.**
  - a. Contractor Quality Control Plan (CQCP): The contractor shall develop a quality control plan and *shall furnish to VA for review no later than 30 calendar days after the receipt of notice to proceed*. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. VA will consider an interim plan for the first 45 calendar days of operation. Installation will be permitted to begin only after acceptance of the CQCP or acceptance of an interim plan applicable to the particular feature of the work to be started. Work outside of the features of the work included in an accepted interim plan will not be permitted to begin until acceptance of a CQCP or another interim plan containing the additional features of the work to be started. After acceptance of the CQCP, the Contractor shall notify the Contracting Officer Representative in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.
  - b. Safety Plan: Comprehensive safety plan shall be implemented by the Contractor to eliminate injuries occurring relative to providing the design and installation services for this project. *Installation will be permitted to begin only after VA's acceptance of the Safety Plan*. Contractor is responsible for providing enough project lead time to allow for VA review of Safety Plan before acceptance. The Department of Labor OSHA requires that all Contractors involved in installation on VA owned or leased property comply with the Incorporation of General Industry Safety and Health Standards applicable to Installation Work and Technical Amendments, Final Rule 29 CFR Parts 1910 and 1926 as published in the Federal Register Volume 58, No. 124, June 30, 1993. In addition, any Contractor that performs construction type work on any VA project as defined by the Scope of the referenced regulation is required to; (1) Provide and maintain his own protective equipment and devices, etc; and (2) Require all sub-contractors used on site to follow these same provisions in the regulation.

- c. *Environmental Plan*: Comprehensive environmental plan shall be implemented by the Contractor to prevent environmental pollution during, and as result of, construction operations under this contract. *Installation will be permitted to begin only after VA's acceptance of the Environmental Plan.* Contractor is responsible for providing enough project lead time to allow for VA review of Safety Plan before acceptance. The plan shall include the identification and resolution of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life or affect other species of importance to human.

**4.1.6** The performance periods and submission schedules for each phase of design are indicated below.

1. Contractor shall submit Preliminary 50% design analysis, drawings, and specifications to the VA for review and approval *no more than 45 calendar days after NTP* is issued. This submittal will include drawings, outline specifications, design analysis, a design documentation report, quantity and cost estimates, an installation cost estimate, a proposed installation schedule, site plans identifying all right of ways, a complete order of work clause describing the required sequence of installation operations, and other supporting documents.
2. The Contractor shall submit 100% design analysis, drawings, and specifications for the VA review and approval with implementation/rejection of comments provided by the VA during 50% review *no more than 45 calendar days* after receipt of preliminary design review comments. This submittal will include detailed working drawings and specifications necessary for the effective coordination and efficient execution of the installation work. The final design shall also include a installation contractor submittal register, design analysis, a design documentation report, quantity and cost estimates, an installation cost estimate, a proposed installation schedule, site plans identifying all right-of-way (for installation and perpetual operations), and other supporting documents.
3. The Contractor shall submit final design analysis, drawings, and specifications with implementation/rejection of the VA comments provided during 100% for review and approval, *28 calendar days* after receipt of final design review comments. This submittal will include same items that are required for the final design submittal.

**4.1.7** During the installation phase, Contractor shall submit Coordination (Shop) Drawings to the VA for review and approval.

**4.1.8** In addition to the elements mentioned above, the contractor shall submit to the VA

1. Progress reports to the VA.
2. Inspection report.
3. Test reports.
4. Upgraded schedule.
5. Contractor shall provide for review and approval by VA, any stand-by power provisions or partial requirements standards required by the local utility and required as part of this installation. Provide cost information relative to the agreements and any other equipment that may be required by the utility and proposed system installation.

**4.1.9** During the completion of the project, the Contractor shall submit

1. Punch-list to the VA for review.
2. Final inspection report.
3. O & M manual.
4. Warranty documents.

**4.1.10** Upon completion of the project, the Contractor Shall Submit

1. Engineering calculations used to determine design characteristics of the PV system, and sizing and selection of system components. Engineering calculations include, but are not limited to, structure, module operating temperature, conductor sizing, and over-current device ratings. Calculations shall be on 8 ½ inch by 11 inch sheet, suitable for side binding.

2. Detailed drawings of the PV mounting system and how it is integrated to the canopy support structure; submit engineering calculations used to determine the canopy's structural integrity considering appropriate wind loads.
3. Connection Wiring Diagram: Provide a wiring diagram for complete system installation. Diagram shall show how components are wired; including but not limited to terminal blocks, wire sizes, wire connections, connection to external devices and ground connections.
4. Engineering data and calculations indicating acceptable system load limits are met for each site.

**4.1.11** Upon completion of the installation, the contractor shall demonstrate the performance of the system to the Field Inspector and COR and shall submit the documentation, items and other information listed below.

1. The contractor shall provide all information pertinent to the equipment for preventative maintenance and replacement. Include full product documentation from manufacturer, installer and/or supplier. Data shall be both electronic (PDF, Word or AutoCAD) and hard-copy, on 8 1/2 inch by 11 inch sheet, suitable for side binding. Include 3 copies of the items listed below and other features as recommended by the manufacturer.
  - a. As-built versions of the submittals and drawings shall be both electronic and hard copy.
  - b. Installation drawings and field wiring diagrams.
  - c. Operators manuals for each system component including detailed instructions on how to operate the system, programming and installation instructions, emergency operating procedures, default program values and set points, listing of field programmed variables and set points, equipment wiring diagrams, product model number, with Name, Address and Telephone number of local representative, starting, operating, and shut down procedures. Include normal and emergency shutdown procedures, schedule of maintenance work, if any, recommended cleaning agents and methods, replacement parts list, including internal fuses, and warranty information.
  - d. Provide a formal 2-hour on-site training session instructing operators at the medical center in the operation and maintenance of the new system, including operation and maintenance of inverters, disconnects and other features as requested by VA. VA shall be permitted to video tape this training for official use. Contractor shall instruct the VA personnel in removal and installation of panels, including wiring and all connections. At the time of training the Contractor shall furnish, for the equipment specified, operation and maintenance manuals, record drawings and recommended spare parts lists identifying components adequate for competitive supply procurement for operation and maintenance of system. The operation and maintenance manuals shall include maintenance schedules for all equipment.
  - e. Provide the VA with written instructions and procedures for all components of the system. At the time of training the Contractor shall furnish, for the equipment specified, operation and maintenance manuals, record drawings and recommended spare parts lists identifying components adequate for competitive supply procurement for operation and maintenance of system. The operation and maintenance manuals shall include maintenance schedules for all equipment.
  - f. Start up report including system and individual panel performance. System and individual panel performance shall be compared to expected performance and shall include at a minimum solar irradiance, DC energy, AC energy, ambient air temperature and PV cell temperature. System performance shall be measured and reported for at least one full day.
  - g. If the performance monitoring of the installed array indicates the array is not meeting its required performance predictions it shall be corrected by the Contractor at the Contractor's expense within thirty (30) calendar days of notification. Following correction, performance monitoring will again be performed until the array meets required performance predictions. Measurements made under actual installation and temperature will be normalized to STC.

## **4.2 Project Acceptance**

*Project Acceptance:* All submittals and deliverables must be received and approved by the COR before final acceptance of the line item will be made.

## 5.0 DEFINITIONS

1. **Distribution of Submittals:** Deliverables for each phase of design shall include a complete set of electronic files and hard copies of all drawings. All other documents including narrative and text documents, specifications, design analysis and cost estimates shall be furnished on recordable compact discs.
2. **VA Review and Comment Resolution:** The VA will review all submittals identified under this contract. Formal comments generated by the VA during the review will be provided to the Contractor. Reviews of design documents, shop drawings, and product data by the VA are not to be interpreted as an approval of the Contractor's selections or progress toward meeting contract requirements.

The Government will have fifteen (15) business days to review each document and provide feedback/comments. The Contractor shall provide a response to VA comments within five (5) business days. Both parties will discuss the comments, if necessary, and attempt to resolve any unsettled issues that may arise from the review. After delivery of the final document with comments the Contractor will be notified within ten (10) business days whether the document is accepted.

3. **Amended Plans and Specifications:** The Contractor shall provide revised plans, if any, which include all amendment changes, fifteen (15) calendar days after opening.
4. **Shop Drawings and Product Data:** The Contractor shall submit shop drawings and product data (catalog cuts, etc.) as stipulated herein. Shop drawing/product data submissions to the VA shall be made after review and approval by the Contractor's Design firm. This is in addition to and separate from specification submission material. Shop drawings/product data shall be delivered to the VA within thirty (30) calendar days following the VA's review of final document design and/or the Contractor's establishment of subcontract agreements to provide involved work. Shop drawing and product data submissions shall be made as directed by the Contracting Officer and shall include three (3) copies of all materials.
5. **Design-Build (DB):** as used herein, means combining design and construction in a single contract with one contractor.
6. **Contracting Officer (CO):** The VA's Contracting Officer (CO) has the authority to enter into, administer and/or terminate contracts and may make related determinations and findings. The CO will designate to the Contractor in writing the roles and responsibilities of other VA officials as they relate to the execution of this contract.
7. **NEBC Project Manager:** The Project Manager is responsible for administering contracts under the immediate direction of the Contracting Officer.
8. **Contractor:** The Contractor is solely responsible for the management (planning, supervision and contract coordination), design (professional) services and installation (including all labor, equipment, materials and inspections) to meet requirements of this contract.
  - a. **Management:** The Contractor shall provide individuals in the capacities of Contractor Project Manager and Installation Superintendent. The Contractor Project Manager shall have legal (on-site signature) authority to represent the Contractor. The Project Manager shall be the initial point of contact for coordinating with the VA. The Installation Superintendent shall coordinate installation work and associated contracts.

- b. *Professional Services*: The Contractor shall provide required design and consultant services. Design and specialty consultant principals shall have legal authority to represent associated firms. Lead Designers have design sign-off authority for involved disciplines. Senior architects and engineers are those who have significant influence over design development.
9. **Design**: This term, as used herein, refers to the Design services ancillary to the installation and maintenance of fully functioning Solar (PV) systems.
10. **Contracting Officer's Representative (COR)**: The COR will serve as Contracting Officer's Technical Representative and, as well, a Project Manager will be assigned to represent the Contracting Officer as identified in the respective delegation letters. The respective duties will be described thereto.
11. **Construction**: This term, as used herein, refers to construction means construction, alteration, or repair (including dredging, excavating, and painting) of buildings, structures, or other real property for the purpose of delivering a fully functional Solar PV system.
12. **Commissioning**: Commissioning is required for this project to verify that the intended design as reflected in the contract documents has been achieved. Commissioning shall be the responsibility of the VA. Commissioning shall be conducted in a manner to include full range of checks and tests carried out to determine if all components, subsystems, systems and interfaces between systems function in accordance with the design intent, as identified in the contract documents. In this context, "function" includes all modes of operation, all conditional control responses, and all specified responses to abnormal emergency conditions. Although not desirable, it may sometimes be necessary and acceptable to postpone testing, pending the appropriate climatic condition provided all parties understand the contractual implications. The contractor shall be on site to assist during the commissioning process.
- Commissioning testing will include all necessary tests to verify system performance, and modeling to forecast expected first-year AC energy delivery. In the case that the PV system as constructed does not meet the AC energy delivery as quoted by the contractor, the contractor shall remedy by upgrading the system, in a manner acceptable to VA, to achieve the contracted AC energy delivery target.

## 6.0 SPECIAL CONTRACT REQUIREMENTS

**6.1 This is a "Turn-Key" project.** The contractor shall be responsible for all phases of the project, with the exception of commissioning, and each phase shall be subject to VA approval at designated project milestones. This project includes (but is not limited to) all labor, material, supplies, equipment, services, permits and zoning processes, design, installation of all structural, roofing, electrical, and mechanical components, to furnish, install and commission the solar system; including all necessary devices and connections between the inverter and main electrical service including all connectors necessary for complete turn-key.

This Solar PV project will be completed in the following phases:

1. Design
2. Construction
3. 3rd Party Independent Commissioning

The entire activity of the project will follow the following sequence of events:

1. Pre-proposal site visit
2. Submit Quote
3. Award



4. Bonding/Insurance
5. Notice to Proceed (NTP)
6. Design review for drawings and specs (50% and 100%)
7. VA approval of design documents
8. Submission of construction related documents – permits, QC plans, environmental plan, safety plan, etc
9. Commissioning
10. Roof System Integrity Inspection – Receipt of letters of warranty continuation from warranty agents.
11. Acceptance
12. Training
13. Payment
14. Warranty

All contractor developed design analysis, specifications, drawings and any relevant documents pertaining to the design of the project shall be reviewed and approved by VA before the next sequence of events. The approval of the design documents by the VA does not nullify the Contractors' contractual requirements herein.

The contractor shall be responsible for the verification of existing site conditions that may affect required roof membrane integrity, equipment clearances, electrical, control, mechanical, structural and federal, state and local requirements of the contract.

## **B. INSTRUCTIONS TO OFFERORS (Appendix E) CHANGES**

### **I. After paragraph 2. AC Energy Delivery, add the following:**

Offeror shall provide the guaranteed kilowatt hours (kWh) that the proposed system produces in the first year.

### **II. After paragraph 3. Mounting System, add the following:**

C. Offeror shall provide the Mounting Height.

### **III. Section II. Vol I .7. Past Performance, delete all references to “Attachment 3”.**