

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

July 22, 2016

ADDENDUM NO. 1

Furnish and Install Solar Renewable Energy System, Building 1784,
Kalaeloa, State of Hawaii, Department of Defense,
Hawaii Army National Guard,
Job No. CA-1209-C

The items listed hereinafter are hereby made a part of the contract for the above mentioned project and shall govern the work taking precedence over previously issued contract documents governing the items mentioned. Receipt of this addendum is to be acknowledged on page OF-7 of the proposer's packet.

The Bid Opening date has been changed to August 16, 2016.

1. Section 26 31 00 – 1.03, A.3. Please define what should be the kW DC (Direct Current) equivalent of the PV system size required for providing 100 kW AC (Alternating Current)?

Response: The specifications provide data on the DC rating of the system not through a simple rating but by system constraints to permit the contractor to provide the most cost effective solution. As stated here, the max AC output of the inverter is 100kW_{ac}. Paragraph 1.03.D.1 states that the PV system is to cover the 8,500 sq ft structure. Paragraph 2.02.C, states that the minimum PV module efficiency is 13 STC watts DC per square foot (total minimum STC rating of approximately 110.5 kW_{dc}). The DC rating alone does not take into account the inverter efficiency or the system losses of the installation but the 100kW_{ac} rating ensures the GOV a right sized system.

2. Section 26 31 00 – 1.03, A.6-7. Please provide drawings with settings and connection points for existing EMS system to which the PV system must be connected.

Response: Network port will be provided. New network cable and conduit will tie into existing interior conduit path that is available in Bldg 1788 Electrical/Mechanical room. Plenum rated cable is required. PV system does not need to connect to existing EMS system. As required, provide inverter network card. Inverter's manufacturer trending account is acceptable. Refer to Keyed Note 9 on Drawing E-1.

3. Section 26 31 00 – 1.03, D.1. Please provide required system capacity in kW DC using the 8,500 square foot area for PV array.

Response: See response for question 1.

4. Section 26 31 00 – 1.07. HECO has stopped NEM interconnection process on orders from PUC. CGS or CSS are the alternative interconnection methods available.

Response: Per the Statement of Work, the Contractor shall apply for Customer Grid Supply (CGS) agreement in accordance with Hawaiian Electric Company (HECO) and Naval Facilities (NAVFAC) guidance. As stated in 1.03.C.10, the system shall meet or exceed the applicable HECO interconnection requirements.

5. Section 26 31 00 – 2.01. Can we provide solar modules from any manufacturer as long as they are compliant with characteristics explained in Section 2.02?

Response: Yes, other manufacturers are allowable if they are compliant with the specifications and with the Buy American Act.

6. Section 26 31 00 – 2.03, F & G – There are no inverters available with Stainless Steel enclosures. Moreover, can we provide any other inverter which is appearing on HECO approved list?

Response: Manufacturers are not limited to those listed but must meet the requirements of the specifications. Stainless steel enclosures were found to be available by multiple manufacturers. Based on the corrosive environment, stainless enclosures are to be installed.

7. Final Drawings, E-1. There is close to 500' of trenching required over dirt, asphalt, and concrete which is very costly. Is it possible to run the conduit through the roof or eaves of adjacent buildings so as to reduce overall cost?

Response: It is not recommended to run conduit on nearby buildings or facilities not served by the circuit. Directional boring is an option available beyond trenching which may limit surface restoration requirements. Since the design of this project was finalized in 2014, additional utility information for the area around Building 1784 has become available, as shown on the attached drawing. Alternative conduit routes may also be proposed by the Contractor to reduce cost.

8. Final Drawings, E-2. 100 kW Central Inverter specified is no longer acceptable to HECO. Can you redesign the system using multiple string inverters which are found on HECO approved list of inverters?

Response: Specification section 26 31 00, 2.03.B.3, states that the overall system output is a rating of 100kW. The Contractor is to determine the quantity of components to meet this output and that does not limit them from using the micro/string inverters indicated. Any changes shall be noted on red line as-built documentation.

9. Final Drawings, E-2. DC System size and stringing is not available.

Response: The DOR intent was to maximize the system output to 100kW AC while permitting the contractor the flexibility to design the system within the constraints of the specifications in order to meet the required output. Refer to Keyed Note 5 on Drawing E-2.

10. The project specifications are for a 20 year warranty on materials. As a standard, we offer a 1 year workmanship warranty that can be extended to 2 years if necessary.

Response: It is uncertain what materials to which this is referring. If electrical, please refer to specifications 26 31 00, 1.08 and provide the warranty as identified. The PV panels are the only items warranted for 20 years, which is manufacturer warranty, and is currently available on the BOD PV panels (actually 25 years). If structural, the canopy structure is a pre-engineered structure. Provide from the Canopy manufacturer per the specifications.

11. The specifications call for a hot dip galvanized finish with a primed and painted top coat. The purlins for these structures are typically left unpainted.

Response: Provide per the contract documents.

12. There is a 5 year warranty specifically for coatings. As a standard, we offer a 1 year workmanship warranty that can be extended to 2 years if necessary.

Response: Provide as described in the specifications.

13. The array design provided indicates built up truss members. There are no analytics provided, but no member sizing. What assumptions have been made?

Response: As noted on the drawings and the specifications, the structure is a pre-engineered canopy. It shall be designed by a registered engineer in accordance with drawing G-3. Wind, Seismic and Collateral loads are listed in Specifications and General Notes.

14. Does the structure require decking or gutters?

Response: No, Structure is an open trellis-type structure, no decking or gutters.

15. Is there only one car port that is to be built?

Response: Two level-2 electric vehicle-charging stations are required. Refer to Keyed Note 16 on Drawing E-2.

16. Sheet S-1, note 6 indicates the columns to be a square tube. Can an H-Section column be used in place of the square tube?

Response: Yes, provide calculations and details, sealed by an engineer, demonstrating the design meets the loading requirements.

17. Sheet S-1, note 5 indicates a truss type outrigger frame. Can an H-section solid web be used?

Response: Yes, provide calculations and details, sealed by an engineer, demonstrating the design meets the loading requirements.

18. Sheet S-1, note 3 & 7 indicate specific connection types. Can connections types be changed to meet building manufacturer's requirements for their specific design with appropriate calculations & engineers stamp to meet design loading requirements?

Response: Yes, provided calculations and drawings are provided demonstrating the design meets the loading requirements and the foundations are not overstressed.

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