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Date: March 13, 2024

Title: Chancery and Official Residence Modular Solar Units Embassy of Canada to Haiti, in Port-au-Prince

Solicitation Number: 24-253889

The following Questions & Answers is in link with the solicitation document mentioned above.

Questions & Answers # 1

Q1. Installation site / conditions “Can the PV modules also be installed on the existing roofs, or is a ground installation required? At 37.2m², the Official Residence offers little space for a mobile PV system with storage.”

A1. No. We cannot attach or install anything on the building. The intent should be a mobile ground installation.

Q2. Installation site / conditions “How far away is the installation site from the respective buildings / connection points? Is shading to be expected?”

A2. The modular unit can be installed anywhere from 20 feet to 100 feet from the building.

Q3. PV-Storage System “Is it expected to deliver the respective systems including PV in one container or is a separation also possible (20ft storage container + 20ft PV container)?”

A3. Separation is possible in multiple containers.

Q4. PV-Storage System “What exactly is meant by the weight specification "between 3000-7000" kg? Does it refer to the weight without PV?”

A4. Weight specifications have been omitted, please see addendum 3 for additional information.

Q5. PV-Storage System “The minimum storage capacity was specified as 50 or 15 kW. Are kWh possibly meant here?”

A5. Yes, Section 3.2.5.6.6 has been revised. Please see addendum 3 for additional information.

Q6. PV-Storage System “Are the UL standards mandatory for the tender? As I understand it, these standards are not mandatory for Haiti.”

A6. Yes, UL std are required to ensure quality and safety testing. The below standards have been added in addendum 3.

- NFPA 855 Standard for the Installation of Stationary Energy Storage Systems and
- UL 9540A Testing the fire safety hazards associated with propagating thermal runaway within battery systems.
- UL 9540 Energy Storage Systems and Equipment

Q7. PV-Storage System “Do the UL standards only apply to individual components or to the entire system or only to the installation on site?”

A7. Each individual component shall have the required certification mark.

Q8. PV-Storage System “Which operating mode is desired? Should the PV storage solutions be connected to the existing generators? (Operation of the power supply via PV + batteries with gensets as backup? Or in parallel with switchover).”

A8. The system is intended to be used in case of emergency if fuel is not available to maintain operation of critical load. However, PV and battery should be connected Operation of the power supply via PV + batteries. The controller should be triggered from a baseline parameter if the batteries get depleted below a certain threshold, then the gens to start up to charge batteries.

Q9. Installation work / set-up “Ground conditions (must be cut / chiseled, obstacles)”

A9. No. Preferably on flat surface

Q10. Installation work / set-up “Is mechanical excavation permitted?”

A10. Preferably not. This should be a plug and play unit.

Q11. Installation work / set-up “What are the working hours on the embassy site?”

A11. 8am to 5pm but work can be accommodated off hours.

Q12. Installation work / set-up “Is access to the construction site unhindered after access control?”

A12. No.

Q13. Installation work / set-up “Is it possible to use the power supply for power tools during the construction phase?”

A13. Yes.

Q14. Installation work / set-up “Are toilets available for assembly/construction personnel on the embassy premises?”

A14. Yes, toilets can be made available on site as long as they are cleaned each day following usage.

Q15. Civil Requirements – Seismic Requirements “Do we need to attach to the ground. If we do, should we carry for a Geotechnical Engineer?”

A15. No. It is important to note that Port-au-Prince is a high seismic zone and should be taken in consideration.

Q16. Civil Requirements – Seismic Requirements “The footprint required for the operating building, is the Solar array required to fit in this as well?”

A16. The solar PV’s can be extended and cover a larger footprint then the modular container unit.

Q17. Civil Requirements – Seismic Requirements “Given the substantial Warranty required for the components in this, and the location it’s being delivered to, would the Canadian Government be open to renting this equipment, to offset any Warranty requirements and put the onus on the Contractor.”

A17. At this current stage, we would be looking at procurement only.

Q18. “Will the battery system need to be charged by both the generators supplying the microgrid and the PV or will the PV supply all the charging to the batteries?”

A18. Batteries to be charged by both PV and Generators.

Q19. “In section 3.2.5.6.6 the minimum storage is written as kW should this be in kWhr?”

A19. Yes, please refer to addendum 3 for additional information.

Q20. “Will the Inverters need to be grid forming and grid following?”

A20. There is no GRID. Both OR and Chancery are on 24/7 Generator with no connection to the local grid.

Q21. “Will the BESS be AC coupled on the bus or can it be inline between the microgrid and load?”

A21. Either solution would be acceptable.

Q22. “Is it possible to provide a proposal in a mix of English and French?”

A22. Yes, that is not a problem.

Q23. “Are you looking for these specs exactly?”

A23. These are the minimum requirements but can be larger. It doesn’t have to be exactly this size.

Q24. “Will the system be installed on the roof or on another place of land? Do you have an idea of where it’s supposed to be or is it the whole concept we have to come up with?”

A24. It will be ground mounted, and we are looking for a plug and play solution where we don’t have to intervene a lot. The system comes pre-wired, pre-assembled, which is the idea of the system we are looking for. Where exactly will be dependant on the size and what you are proposing.

Q25. “Do they have to be transportable, how easily set up do they have to be? Can they be put on trailers to be easily moved?”

A25. In section 3.2.5 in the Statement of Work in the RFP we specify the requirements of the housing for the units.

Q26. “Do you expect to cover the energy leads only with PV and battery storage?”

A26. We are looking to see what is available in the market to see if we can meet this load with PV and battery. We do have generators on site, the idea is to minimize the use and reliance on the generators. We are trying to have most of our loads met using batteries and solar.

Q27. “In regard to the space for the OR, 37.2 m2 doesn’t seem like enough space for enough PV”

A27. We don’t have a feasibility study conducted for how much solar or space we require to cover to full load in the OR. We have this information for the Chancery.

Q28. “Does this modular solar unit was for the Official residence or the entire building (Embassy)? Are you looking to acquire the 60Kw or 20Kw Modular System?”

A28. The modular solar unit are required for both the Official Residence and the Embassy Building, available size in the market and relation cost benefit will factor on final decisions on how many will be purchased.

Q29. “Can we bid on only a part of the scope? For example, only the chancery?”

A29. We are looking for 1 solution. We are looking to award 1 contract to 1 contractor for the entire scope of work which would include a solution for the Official Residence and the Chancery (Embassy).

Q30. “Is there preference in the PV being coupled onto the AC side of things? Or do they have to be on the DC side?”

A30. There is no preferred option.

Q31. “Does the inverter need to drive the grid? Does it need to form the grid? Or can it be contributing to the grid? Can the inverter system be in between the grid and the load, or does it need to just contribute to a common?”

A31. There is no GRID. Both OR and Chancery are on 24/7 Generator with no connection to the local grid.

Q32. “In regard to the containers in 3.2.5.1.1, is it expected to deliver only one container? For example, one container for the PV system and one container for the hybrid battery storage?”

A32. We do no have limits on the number of containers; we just want them to be containerized.

Q33. “What does the ground look like on site and is there any civil work required? For example, do we need any type of foundations, excavation, etc.”

A33. The idea is to be as mobile as possible, as plug and play as possible. If we need a foundation or slab for the container that will have to be built. Consider flat ground as your baseline. Machinery is not required for the trenching; we prefer hand digging or scanning.

Q34. "Would the embassy be able to provide documentation or letter to the local authorities in regard to the import of the containers and all materials?"

A34. The Embassy will indeed facilitate the import process. Bill of Lading and commercial invoices will be required so the Embassy can start working the customs and brokers.

Q35. "We're trying to get some targets for the KW and power. There is a bit of shading on the site from trees and other buildings. Is there any guarantee that we're going to have a spot that isn't going to conflict what you are asking for?"

A35. There is no guarantee. Please estimate with the minimum numbers provided.

Q36. "Will there be a site plan provided with a proposed area of where this can be? So we can provide an accurate estimate. The civil part will be an uncertainty until we can see where we can place the units."

A36. Yes.

Q37. "Is getting the equipment and modules to site our responsibility?"

A37. Yes. Embassy will facilitate where needed.

Q38. "The weight specification is between 3000 and 7000 kg is it per container. Why is there this limitation?"

A38. This was recommended by the consultant, ports and regulations. The wight limitation has been omitted as per addendum 3.

Q39. "It is mandatory to use the system within US standards. In Haiti, the US standards is not necessary. Do you need some components that have the US standard (i.e. inverters and batteries) or do you mean the whole system must be constructed using US standards?"

A39. Yes, these standards are required to ensure quality and safety testing. Please refer to addendum 3 for additional information.

Q40. "Is it possible to bid with some of the components with US standards or does the whole system need to be certified?"

A40. Refer to Q7. Each individual component shall have the required certification mark.

Q41. "Where is the construction aspect of this work? So far it is a container, installation and plug and play."

A41. The Modular Solar Unit should indeed be a "plug and play" system. There may be some modification required at the electrical panel or certain site preparation needed.

Q42. “Upon arrival in Haiti, will the Mission be transporting us in armored vehicles to and from the airport or is it our responsibility?”

A42. The Embassy will make all effort to provide transportation. It is important to note that the numbers of vehicles are limited, and coordination is required several days prior to travelling to site.

Q43. “In section 3.2.5.4.4 you wrote 25 kW. Is this correct?”

A43. Section 3.2.5.4.4 has been revised. Please see addendum 3 for additional information.

Q44. “Could we hire a local company to work with us on this project?”

A44. Yes. Please ensure you are completing either the JV or subcontracting information in the tender form.

Q45. “3.2.5.4.4 => Did you mean kWp (The peak power of the panels as specified in the data sheets)?”

A45. Yes, Section 3.2.5.4.4 has been revised. Please see addendum 3 for additional information.

Q46. “3.2.5.6.6 => Did you mean kWh (The capacity/ size of the storage) or KW (e.g output power)?”

A46. Yes, Section 3.2.5.6.6 has been revised. Please see addendum 3 for additional information.

Q47. “Available footprint for installation in the official residence ist only 37,2 m² => there is probably not enough space for a 25kWp solar system. Should we still offer the 25 kWp?”

A47. Yes. As baseline 25kWp. However alternative solution can be proposed.

Q48. “Can we submit an additional solution proposal for the official residence so that the goal is achieved?”

A48. Absolutely.

Q49. “For the project 25kw of panel on a single container is a lot for the space available! Let’s say for 500W solar panel we’ll need to install 50 pcs! Can we put 2 container side by side?”

A49. Yes.
