REQUESTS FOR CLARIFICATION # 3

Engineering, Procurement, Construction, and Initial Operations, and Maintenance of Rooftop Solar PV and Energy Efficient Air Conditioning Systems at the University Hospital of the West Indies".

Please note that clarifications must be specific to the RFP and not just general questions

ITEM	QUESTIONS	RESPONSES
1	We have some concerns regarding the state of electrical main panel and subpanels as they appear to have a number electrical code violations and are in need of repair that may extend beyond the scope of installation of ACs and solar. Following the installation of such equipment an inspector will find issue with the remaining deficiencies unrelated to the work. How does the MSET plan to address the risk associated with electrical deficiencies unrelated to the scope of work in this tender?	Support from the Facility to address any identified electrical deficiencies, unrelated to the scope of work in the tender will be provided
2	There appears to be a discrepancy between the Structural Integrity Assessment design criteria and the specified Design Conditions. The Structural Integrity Assessment report reference wind speeds of "up to 157 mph - Category 5 Hurricane force wind", whereas the tender document's Design Conditions under Section 5.3.3 of Scope of Work specifies "180 miles per hour basic design wind speed, Risk Category III or IV per ASCE 7". Please clarify if the tender document intends to match the design condition of the structural assessment report. If the discrepancy between the Structural Integrity Assessment design criteria and the specified Design Conditions is not resolved, we believe that it leaves undue risk on the bidder to assessment the condition of the roofs and jeopardize the technical compliance in a fair and reasonable manner in the timeline provided until the proposal are due on Oct. 18, 2022	Category 5 wind speeds is to be used as the reference
3	The space provided by the roofs will not accommodate 808kW dc of solar modules, due to obstruction and shading issues such as the solar array in ENT and Tony Thwaites Wing where the array is placed with an obstruction on the south side of the array and a larger tree above. We see considerable practical issue to meet the required 808kW sizing. Please consider using other roof spaces and provide structural information regarding their usage. If other space cannot be used, then it will challenge meeting the 808kW	Roof-space at the Pediatric ward may also be considered

	size requirement and other scope of work definitions may need to be considered.	
4	In Industry Codes and Standards, Section 4.2 of the Scope of Work, it is stated that "Additional industry codes and standards include, but are not limited to, the following:". This leaves room for additional codes being applied to this project that the bidder may not be aware of. Please confirm all applicable code and standard and remove the wording "but are not limited to".	The wording does not suggest the application of additional codes but instead indicate that the listing is not exhaustive. As such there is no need for the removal of the specified wording.
5	During a site visit, a sample of the air conditioning unit where reviewed, however it was discovered that a number of them have already been replaced with inverter type units. The Annex 3 Schedule of Pricing states the replacement of 143 Inverter Type AC which presently need to be adjusted to have a fair and even ground for all bidders. Please revise the Annex 3 and Appendix C Listing of Existing Non-Inverter Type Split Air-Conditioned Units to reflect the present condition and the number of units that needs to be replaced.	Please submit bids reflecting the number of units to be replaced as indicated in the Bid Document. Should there be the need for any adjustment this will be done at a later date.
6	Building floor plans are needed to adequately design and ensure appropriately size cooling systems. Please provide floor plans for the areas where air conditioning units are being replaced.	Floor plans cannot be provided at this time
7	There appears to be capital projects carried out at the hospital that would require single line drawing being generated for the building. We urge MSET reconsider the supply of all available building and electrical drawings to assist with preparation of bid within the provided timeframe	Electrical Power Distribution drawing is available (see attachment)
8	How to respond to this RFI: With respect to the Rapid Shutdown (RSD) requirements (pages 146 and 166 of RFB) please "explicitly state": i) which of the three referenced "electrical codes (and its year)" is intended to govern RSD requirements for the UHWI PV System. i) whether Only Array Level Shutdown is required (Hence application of CSA C22.2 No. 330) ii) whether Module Level Rapid Shutdown is required (NEC 2017 and later) iii) whether an emergency activation (mushroom) "button" is ALSO required to be available to a Plant Manager/First Responder to activate/trigger the RSD system outside of automatic inverter/arc-fault triggers.	Please be guided by the Jamaica Public Service Interconnection Technical Guidelines pages 173-186. Also be guided by NEC 2017

	iv) whether “thermal” auto-triggering of the RSD system is ALSO required (in case a “non-electrical” fire was to develop within any building	
9	Please explain how the electrical “Ground Ring requirement” required in the RFB will be NEC code compliant	Grounding design shall comply with all requirements of the NEC 2017 and the selected building’s electrical grounding system