Invitation To Bid (ITB)

Supply and Installation of Solar Panels at Ministry of Environment in Cambodia
The Additional Clarification Note to Bidder's queries

Process 7492

Reference to the above ITB, UNDP has received the below queries from bidder and we would like to share the clarification as below:

No.	Questions	Answers
1	Refer to page 31, 9.2 Yield study: "The Contractor will carry out an energy yield estimation study for the designed PV system. The Contractor will use PV SYST Software or equivalent tool". Could you please confirm Yield studies done in Helioscope will be accepted?	Yes.
2	Refer to page 31, 9.2 Yield study: "The Contractor shall use the most accurate available solar resource for the site of the project for the simulations (Meteonorm, SolarGIS or equivalent data)". Is a TMY, 10km Grid, meteonorm standard dataset used by Helioscope accepted for simulations?	Yes.
3	Refer to page 42, 12.4 Basic design: Type of inverter 10kWac (SG10KTL-EC). Number of inverters 5. Is the specified Sungrow inverter preferred over other model or brands? Is it acceptable to use a 1 * 50kW inverter instead of 5 * 10 kW Inverters?	Basic design is only for the 1st phase of the project, to give Client and bidders an overview about the project. Sungrow is not preferable over other brands. In basic design, the use of 5 inverters is for a better availability of the system: When one inverter is malfunctioned, the others still work and provide energy for building. The defect of one 50kW inverter will result in the stop of whole solar system. However, Bidders are free to choose brand (in the preferable list) and model to adapt their technical proposal, for the best of the project, in term of technical and financial aspects, as their understanding.
4	Refer to page 53, 19. Main Low Voltage PV Cabinet: "Automatic disconnection device of the PV system".	Yes.

No.	Questions	Answers
	This is an already integrated feature in most PV Inverters in the markets. Is it required to install a separate "Automatic disconnection device in the AC side"?	
5	Refer to page 60, 26.2 Connection to the existing emergency stop. "The proposed design of the Contractor shall include the connection of each of the LV PV cabinet to the emergency stop system of the building in order to be able to switch off the PV system in case of emergency or on the general LV electrical installation". Could you please provide more information about the existing emergency stop system of the building? Pictures, electrical drawings, location and similar information would be very helpful.	Yes, if the bidder can provide a solution that is able to synchronize solar system into grid, to supply energy in parallel with national grid source. In other case, if their off-grid solutions means "standalone system" (which is for remote area only, where national grid cannot reach), it is not eligible because: - Solar system generates energy without connection with national grid, then cannot supply energy in parallel with national grid source. - In our project, standalone solar system cannot generate enough energy for total consumption of the building. Moreover, solar energy is an intermittent source, it requires auxiliary sources, for example diesel generator which results in extra cost.
6	Refer to page 57, Supply of Inverter and Associated Boxes: "Ratio between the power peak of the modules connected to the inverter and the inverter's permissible maximum input power - ranging between 0.85 and 1.05". This current system set up is 66kWp in panel capacity with 50kW in Inverter capacity. This results in DC to AC ratio of 1.32. Would this be accepted by the client as information displayed in page 57 seems to limit this to 1.05?	Please distinguish between DC/AC ratio and the above requirement: - DC/AC ratio: Ratio between output of PV modules (DC) and **output of inverters (AC)** : This rate shall be around 1.3. - Above requirement: Ratio between output of PV modules (DC) and **input of inverters (DC)**
7	Second 50% payment, in case of delays in permission process, can UNDP put a 30 days maximum between delivery of materials and 50% payment? So contractor	We will discuss further with successful bidder.

No.	Questions	Answers
	will be paid 30days after delivery of materials in case of delays in permission process?	