

## **Invitation To Bid (ITB)**

### **Supply and Installation of Solar Panels at Ministry of Environment in Cambodia** **The 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:

<b>No.</b>	<b>Questions</b>	<b>Answers</b>
1	What is the ITB number? Is it the process number 7492.	Yes, the ITB Number is 7492.
2	Maximum duration of the contract is 6 weeks after signing as per Data sheet. Does it mean that the project is to be completed and handed over at site in 6 weeks or the delivery of goods at destination since the INCO term is DAP. You may here kindly note that after signing the contract it will take about 3 to 4 weeks for goods to be manufactured and shipped. The voyage time for destination from India is 40 to 45 days. Clearance at discharge port will also take some time.	6 week is the preferable timeline. However, the bidder can propose the delivery due date in their bid.
3	We request UNDP to please extend the bid submission date.	As requested by bidder, the bid submission deadline is extended to <b>18 July 2018 at 12:00 pm, Cambodia time.</b>
4	Is there any way to organize the 2 <sup>nd</sup> project site visit?	The 2 <sup>nd</sup> project site visit will be held on <b>09 July 2017 at 3:00 pm, Cambodia time</b> at MOE office.
5	Does the Solar Off-Grid Solution system is eligible to submit bid?	<p>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.</p> <p>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:</p> <ul style="list-style-type: none"><li>- Solar system generates energy without connection with national grid, then cannot supply energy in parallel with national grid source.</li><li>- 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.</li></ul>
6	Refer to point 9.2: <b>Yield estimation study</b> in section 3.a  << The Contractor will carry out an energy yield	Yes

No.	Questions	Answers										
	<p>estimation study for the designed PV system. The Contractor will use PV SYST Software or equivalent tool.&gt;&gt;</p> <p>I assume only Licensed software will be allowed to be used?</p>											
7	<p>Table 1: Proposed pre design of the PV system on MoE head office</p> <table><tr><th>Key specifications</th><th>Values</th></tr><tr><td>Peak power</td><td>66.0 kWp</td></tr><tr><td>Estimated number of solar panels</td><td>200</td></tr><tr><td>Type of inverter</td><td>10kWac (SG10KTL-EC)</td></tr><tr><td>Quantity of inverters</td><td>5 inverters</td></tr></table> <p>Table 2: Main modules of configuration</p> <p>This specifies a Sungrow inverter of 10kW. Can we use a bigger inverter (so less than 5pcs) of the brands specified elsewhere in the document?</p>	Key specifications	Values	Peak power	66.0 kWp	Estimated number of solar panels	200	Type of inverter	10kWac (SG10KTL-EC)	Quantity of inverters	5 inverters	<p>This part is only for describing our basic design for the system, to let bidders have an overview about the project.</p> <p>The specific requirements for inverters are in section 13 and 21.2, stated that “Depending on the proposed configuration and total capacity by the Contractor, the quantity of the inverter can be proposed by the contractor”. It means bidder would choose the configuration that fits their design.</p>
Key specifications	Values											
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8	<p>Refer to <b>13.1.1 Additional studies</b> in section 3.a &lt;&lt;Additional studies shall be conducted by the Contractor if „necessary&gt;&gt;.</p> <p>Can you specify the additional studies?</p>	<p>The current requirements only include <i>Yield estimation study</i>. Depending on the proposed design of the Contractor, additional studies for engineering would be conducted (Roof structure study for load assessment, waterproofing study in case of drilling, etc.). The Contractor will conduct those additional studies, to support their proposed design</p>										
9	<p>Refer to 19.1 in section 3 a.</p> <p>&lt;&lt; The emergency shutdown system shall comprise a push button lock, be accessible from outside the enclosure and protected against accidental operations by a protective collar. The emergency shutdown system of the PV system should also be connected to the general shutdown system of the head office.&gt;&gt;</p> <p>What is meant by head office?</p>	<p>The considered building (MoE’ head office). This requirement is for the electrical safety. In case of incident or for electrical construction that require power cut, solar system shall be design for not feeding the power supply system</p>										
10	<table><tr><td>disconnection/</td><td></td></tr><tr><td>State of the surge protection device in its enclosure and MSB PV</td><td>Monitored surge protection device</td></tr><tr><td>State of the emergency shutdown system</td><td>Acquisition on the emergency stop's circuit</td></tr><tr><td>State of the automatic disconnection protection</td><td>Inside the automatic disconnection protection device</td></tr></table>	disconnection/		State of the surge protection device in its enclosure and MSB PV	Monitored surge protection device	State of the emergency shutdown system	Acquisition on the emergency stop's circuit	State of the automatic disconnection protection	Inside the automatic disconnection protection device	<p>Yes. The three functions that you quoted are about 3 main protection functions of the system. The monitoring of those functions is important for preventative maintenance, it helps avoiding possible incidents with an easy check of technician.</p>		
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State of the surge protection device in its enclosure and MSB PV	Monitored surge protection device											
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No.	Questions	Answers												
	The monitoring system is very elaborate. Most monitoring systems offered by inverter suppliers mentioned in this document cannot monitor all these parameters. Is it the intention to design a custom made monitoring system for this project?													
11	<table><tr><td></td><td></td></tr><tr><td>Monitoring and data acquisition system</td><td>set</td></tr><tr><td>Data acquisition and remote transmission system</td><td></td></tr><tr><td>Weather station</td><td></td></tr><tr><td>Display panel</td><td>X</td></tr><tr><td></td><td></td></tr></table> <p>Display panel is the computer mentioned in documents?</p>			Monitoring and data acquisition system	set	Data acquisition and remote transmission system		Weather station		Display panel	X			PV modules are installed on the roof which is not able to be observed. A display panel in guest lounge of the building (ground floor) that provides information about the solar system would be very interesting for promoting environmental friendliness of MoE and UNDP.
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12	It was mentioned in the site visit permissions are needed from MOE for making changes on the building. Can UNDP be the intermediary for these requests?	It is the role of Project Manager. PM will coordinate between MoE and Contractor about the intervention to the building. We agree that would be an effective way to implement.												
13	Can you explain how to run the Cabling from the roof to the electrical room on 5th floor?	DC cables will be installed on cable trays for protection. Outdoor cable pathway: North large terrace→South large terrace→ down to 5th floor. Drilling through the wall of technical room in 5th floor will be necessary.												