



CLARIFICATION 2

ކަނޑުވަނަ ސަފުހާ 2

ނަންބަރު No:	TES/2023/G-018		
ފްރޮޖެކްޓްގެ Project:	Procurement of materials required for rooftop Solar Photovoltaic systems of aggregate capacity 3MWp for household consumers		
އިޝްޔަތު Issued Date	28 <sup>th</sup> December 2023		
ސަފުހާތަކުގެ No. of Pages: -04	ބޯޖު Boq: -00	ވަނަތަކުގެ Drawings: -00	

Please include this clarification when submitting the bid

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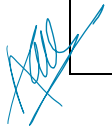
- Please find attached, answers to the queries received.



ނަންބަރު Name: Fathimath Rishfa Ahmed	ސަފުހާ Signature:
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**CLARIFICATION 01**

#	Document Name	Document Reference	Query	Response
1	Section 2: Bid Data Sheet Section 4: Bidding Forms	<p>In Section 2 ITB 14.6 (b) (i) For Goods offered from outside the Purchaser's country, the Bidder shall quote prices using the following Incoterms: 2020 DAP</p> <p>ITB 14.6 (b) (ii) In addition to the above, the Bidder shall quote prices for Goods offered from outside the Purchaser's country using the following Incoterms: 2020 DAP</p> <p>In Section 4 Bidding Forms Price Schedule for Goods to Be Offered from Outside the</p>	Please clarify which mode of quotation should be followed.	Please follow Incoterms 2020 DAP as in ITB.



		Purchaser's Country. It mentions that the quotation should followed other Incoterms.		
2	Section 4: Bidding Forms Section 6: Schedule of Supply	1. Power Guarantee: At least 80% after 25 years 2. Performance of all PV modules shall be warranted with more than 95% power output for 5 years and 87% of minimum rated power for 25 years with not more than 0.6% degradation over a period of one year.	The 25 year power guarantee required by the two chapters is different, which one shall prevail.	The correct values are in Section 6: "Performance of all PV modules shall be warranted with more than 95% power output for 5 years and 87% of minimum rated power for 25 years with not more than 0.6% degradation over a period of one year."
3	Section 4: Bidding Forms	3.8.11 Type Test Certification: PV 1-F/H1Z2Z2-K	PV 1-F/H1Z2Z2-K are cable models.	It should be PV1-F.
4	Section 6: Schedule of Supply	1. IP 65 enclosure for Din-rail mount devices (	1. Please confirm if the enclosure needs to be shipped separately or if MCBs, RCBB, SPD and other equipment need to be installed and shipped.	1. The enclosure can be shipped separately. 2. Install the equipment in the string combiner box before shipping.

		<p>MCBs, RCBB, SPD, etc).</p> <p>2.2 IN - 2 OUT, string combiner box with cable entry flanges, cable glands, terminal block, IP 65 [DC isolator and SPD will be installed].</p>	<p>2.Please confirm if the string combiner box needs to be shipped separately or if DC isolator and SPD and other equipment need to be installed and shipped.</p>	
5	Section 6: Schedule of Supply	<p>1.Copper Earthing strip of 25 mm × 3 mm for equipotential bonding earthing.</p> <p>2.Copper Earthing strip of 25 mm × 6 mm for inverter earthing.</p> <p>3.Copper Earth Rod (3/4", 6'), clamp and accessories for earth pit for equipotential bonding.</p> <p>4.Copper Earth Rod (3/4", 6'),</p>	<p>Please confirm if these materials require pure copper?</p>	<p>These has to be pure copper.</p>

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		clamp and accessories for earth pit for inverter.		
6	Section 6: Schedule of Supply	Weatherproof MCB Enclosure (4P)	Please confirm the size of the MCB enclosure, what equipment needs to be installed inside, what is the protection level, and whether it is a rail type.	Enclosure of suitable size to accommodate 4 pole MCB, with rail. Protection Level : IP66 or higher
7	Section 6: Schedule of Supply	PV modules made of monocrystalline silicon PERC half-cut cells that comply with IEC 61215 and are manufactured by Tier 1 manufacturers shall be supplied. Performance of all PV modules shall be warranted with more than 95% power output for 5 years and 87% of minimum rated power for 25 years with not more than 0.6% degradation	The bidding document requires the use of monocrystalline silicon PERC half cut cells, and requires 87% of minimum rated power for 25 years. Currently, P-type photovoltaic panels cannot meet this requirement. We hope to use N Type monocrystalline cells. N-type photovoltaic panels can meet the technical requirements and parameter table of the bidding documents, and the technology of N-type is more advanced, with higher battery conversion efficiency, longer effective working time, and nearly zero photoinduced attenuation effect.	ok

		over a period of one year.		
8	Section 6: Schedule of Supply	Bidders are required to fill out Bidding Forms in sl.(11) and submit them with their bids, for the required components.	Please confirm that sl.(11) here refers to?In Section 4: Bidding Forms, we do not find sl.(11).	Section 4
9	Section 6: Schedule of Supply	I/C & O/G Interchanged Phase & Neutral Interchanged I/C Neutral Disconnected, O/G Neutral & Load Connected to Earth.	Please confirm what I/C and O/G refer to? What is the full name of this abbreviation?	I/C and O/G - Incoming and outgoing
10	Section 6: Schedule of Supply Section 8: Special Condition	In Section 6: 2.Delivery and Completion Schedule:The delivery Location is Male' Maldives In Section 8:	Please clarify the final delivery location	The place of final destination shall be: Thilafushi, Kaafu Atoll, Maldives

	ns of Contract	GCC 28.3: The place of final destination shall be: Thilafushi, Kaafu Atoll, Maldives		
11			As per tender, smart energy meter is required to supply, kindly please clarify which type of smart energy meter is required? And whether the smart energy meter shall be connected with any system? If yes please clarify the details.	Please contact URA Maldives regarding this.
12			Reference: ITB 24.1 Bid Submission Deadline  Question: We understand that the deadline can not be extended. However in light of extended DHL transit times(7-10 days) to the Maldives during public holidays, we kindly ask the tender committee to accept proof of dispatch for the physical documents via DHL alongside an electronic submission of our bid by the deadline as compliant.	Before the bid submission deadline, bids must be delivered to the address listed in the bidding document. Proof of dispatch will not be considered as submission of bid.
13			Reference: ITB 11.1 (i)  Question: As an international company with no current business presence in the Maldives, we understand that this tender primarily involves the supply of goods under CIP or CIF Incoterms, without direct implications of Foreign Direct Investment in the Maldives. We kindly request your confirmation on whether there is a mandatory registration requirement for an international company like ours in the Maldives, should we be awarded this tender.	Registration not required.
14			Reference: Section 6: Schedule of supply, part 8 List of accessories.  Question: Please clarify the exact number of Non-Insulated Tinned Copper O-Lugs.	27,000 x Non-Insulated Tinned Copper O-Lug (2.5sqmm - 6mm)

			Is it 27000 2.5 sqmm and 27000 6 sqmm pcs or 27000 pcs of 2.5 sqmm and 6 mm length?	
15			<p>Reference: Inverter Technical Parameters-Efficiency</p> <p>Question: Its primarily the hybrid inverters that comply with the high efficiency requirements of %98.2. Given the fact that these are grid tied systems and not hybrid systems, we kindly ask the client to consider accepting %97 efficiency as compliant which is the main industry standard as well as the standard of the Clients preferred inverter manufacturer list in the table.</p>	Inverter efficiency has to be greater than 98.2% as specified.
16			<p>Reference: Technical Specifications-PV Panels</p> <p>Question: TOPCON is a similar technology to PERC. As accepting both technologies will increase the number of compliant Tier 1 manufacturers and provide better value can you kindly confirm that TOPCON technology for solar cells in PV modules is acceptable?</p>	Please provide PERC type as specific in the bid documents.
17			<p>Reference: Technical Specifications-PV Panels</p> <p>Question: As 1/3 cut cells provide better voltage performance in comparison to 1/2 cut. Can you kindly confirm that 1/3 cut cells for PV modules are accepted?</p>	Acceptable.
18			<p>Reference: Inverter Specifications</p> <p>Question: With reference to the technical parameters and preferred makes of inverters specified in the Terms of Reference (ToR): (Fronius/Solis/SMA/Sungrow/Huawei/ABB/Hitachi/Good We/Delta), we have conducted a thorough review of the available models from these recommended manufacturers. We have concluded that none precisely match the technical specifications as outlined 100%. In light of this, we kindly request the committee's consideration to permit minor deviations from the specified technical parameters for the preferred makes of inverters in our bid. We seek confirmation that such deviations will not result in our bid being deemed non-compliant</p>	Our Preferred Make: Fronius/Solis/SMA/Sungrow/Huawei/ABB/Hitachi/Good We/Delta.



19			<p>Reference: Inverter Specifications</p> <p>Question: There is a requirement in the compliance form for single phase inverters for Max input of 1000 voltage (Vdc). Due to the minimal nominal output AC power of 3 and 5 kW, the desired 1000 V of input DC voltage is not necessary. The input voltage of 600 V is the industry standard, most used by the preferred makes. Please confirm that 600 voltage (Vdc) is acceptable.</p>	Please quote as specified in the bid document.																				
20			<p>Reference: PV module specifications</p> <p>Question: In the compliance form 3.1.17, the height of the module is defined as &lt;2200. For PV modules with V of &gt;50, the industry standard length among Tier1 is however 2278 mm. Please confirm acceptance.</p> <table border="1" data-bbox="607 639 1294 842"> <tr> <td>3.1.14</td> <td>Open Circuit Voltage</td> <td>V</td> <td>&gt;50</td> </tr> <tr> <td>3.1.15</td> <td>Current at P<sub>max</sub></td> <td>I</td> <td></td> </tr> <tr> <td>3.1.16</td> <td>Short Circuit Current</td> <td>I</td> <td>&lt;15</td> </tr> <tr> <td>3.1.17</td> <td>Height/Width/Depth</td> <td>mm</td> <td>Height &lt;2200 Width &lt;1300 Depth 35</td> </tr> <tr> <td>3.1.18</td> <td>Weight</td> <td>kg</td> <td>&lt;20 kg</td> </tr> </table>	3.1.14	Open Circuit Voltage	V	>50	3.1.15	Current at P <sub>max</sub>	I		3.1.16	Short Circuit Current	I	<15	3.1.17	Height/Width/Depth	mm	Height <2200 Width <1300 Depth 35	3.1.18	Weight	kg	<20 kg	Please quote as specified in the bid document.
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3.1.18	Weight	kg	<20 kg																					
21			<p>We can match your PV module height requirement below / less than 2200 mm and 87% of minimum rated power for 25 years. However, when we select PV Module with a height less than 2200 mm then VOC of PV Module becomes less than 50 V which is a diviation from your expected VOC (greater than 50V). Therefore, we have a below question to clarify</p> <p>Question - When we match the above mentioned two requirement, can you accept VOC at 45V?</p>	Please quote as specified in the bid document.																				
22			Can we offer Mono-crystalline, Half cut, N type TOPCon PV module instead of Mono-crystalline, Half cut PERC PV modules so that we can easily match your 87% of minimum rated power for 25 years.	Please provide PERC type as specific in the bid documents.																				
23			The eligibility criteria for minimum average annual turnover seems to be on a higher side considering the quantum of	Cannot change.																				

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			work. It is requested to kindly reduce the minimum average annual turnover requirement for a healthy competition.	
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