

Me Clarification Note (Q&A - Round 2)
RFPS-NYH-2021- 503380
Long-Term Arrangement for Solar PV Systems at UNICEF Facilities

Following questions were received from bidders which were responded by UNICEF technical and/or Supply Division team accordingly:

S/N	Questions from Bidders	Answers from UNICEF
1.	Referring to Annex B 1.4: Scope of supply of technical scheme for the solar PV systems, Are tables 5 to 11 supposed to be completed and attached to the technical proposal, or they are to illustrate the required standards (benchmarks)?	All tables must be duly completed
2.	Also, regarding Table 7: Technical Services (based on 1 kWp): What does it mean? Does it mean considering 1 kW, how many units of that will make up the capacity of the PV system? The same applies to tables 8,9,10, and 11. Could you please kindly clarify the purpose of the tables and how they affect the technical proposal?	In all tables we are requesting the works and services that would be required to implement/commission for each unit of kWp of capacity of the solar system.
3.	Referring to Appendix 6, KEY TECHNICAL GUIDANCE PART 2, It says "The following Tables include the main components of the solar PV system and shall be completed by the SERVICE PROVIDER". Could you please clarify what it means by the solar system? Does it mean the system that will be proposed for in Appendix 9 (scenario-based requirements) or otherwise? Please clarify	Appendix 6 and 7 provide the guidelines for the solar PV system to be proposed for the case study of Appendix 9.
4.	Referring to Appendix 7: UNICEF Technical Requirements - Technical Schedules of the Grid Connected Solar PV System (Page 23-35). Please clarify if those tables are to be filled with data from the system that will be proposed as a solution to Appendix 9 Scenario-Based Requirements?	The tables of Annex 7 shall be duly completed when presenting the scenario proposal defined in Appendix 9.
5.	Regarding Appendix 9: Scenario-based requirement, It mentions that 100% solarization is required. However, the load supply curve is between 30 – 35 kW, whilst the load demand curve is 60-70 kW (with solar contributing 30 kW). This contradicts the requirement of 100% solarization. Moreover, it mentions that the solar PV system will replace the existing grid system and will be connected to 2 x 100 kVA diesel generators	100% solarization is needed and load supply is corrected. Kindly refer to corrected Appendix 9. Please refer to corrected Appendix 9.

	<p>(gensets). However, the nameplate capacity given for the generator is 380 kVA (Table A9.4). Additionally, Table A9.6 is titled solar system capacity but stated as 123 kWp. Is that the maximum AC power that the roof space can contain? Please kindly clarify.</p> <p>Finally, regarding point 6, Table A9.7, is it a representative calculation of the carbon savings? Could you please clarify what it means?</p>	
6.	<p>Regarding Appendix 9, "The solar PV system shall include a battery bank of sufficient voltage to provide energy generating at least 15,000 kWh per month", is the stated 15000 kwh, please clarify if it's isn't a typo of 1500 rather.</p>	<p>The solar PV system should be capable of meeting the monthly peak demand of the office which is 15,000 kWh. The system shall include a battery bank of sufficient capacity for a two-day cycle.</p> <p>Appendix 9 is a scenario, whereby UNICEF shall assess bidder's capacity to provide solar PV systems through the different modalities.</p> <p>Bidders may therefore propose any system that provides necessary information for the technical evaluation team to assess bidder's capacity to develop a solar PV system based on a given value of power that a Country will provide.</p>
7.	<p>Appendix 7 mentions that the PV module should have an efficiency >22% in Table schedule 1. However, Appendix 6 (table A6. 1) specifies the module efficiency should be greater than 20%. Please clarify which is correct</p>	<p>Amendment: The efficiency of the solar PV module shall be considered to be $\geq 20\%$ all over the tender documentation.</p>
8.	<p>Also, Appendix 6 states "European Standard efficiency (Euro-ETA) should not be less than 96%". However, in Table schedule 3 of Appendix 7, it states that "European efficiency higher than 98%". Please clarify which is correct.</p>	<p>Amendment: The Euro-Eta shall be considered to be $\geq 96\%$ all over the tender documentation.</p>
9.	<p>Should the Sample documents requested for in Table 4 of the TOR be actual (existing) documents or should they be proposed (as in a draft)? If they should be proposed, based on which specifications; general requirements or scenario-based requirements</p>	<p>All technical requirements shall be followed.</p>
10.	<p>In annex 10 B, Is the required battery voltage correct. We would assume 48 Volt solutions to be more applicable for scalable solutions.</p>	<p>Bidder can propose alternative solutions including proper justification.</p>
11.	<p>Appendix B. Page 23: This list seems to be made by combining highest class specifications from both IEC 61724-1:2017 and ISO 9060:2018, with a few modifications, for instance Nonlinearity: < 0.2% at 0 -1000W/m2 seems to match spectrally flat Class A pyranometer from ISO 9060:2018. But expanded from the standard 100-1000</p>	<p>High standard equipment is required all over. The bidder can provide an alternative, including the proper justification. A quotation should be provided accordingly.</p>

	<p>W/m2, and Solar spectrum: 250 – 2800 nm Seems to come from IEC 61724-1:2017 compliance requirements for an A-class, again with changed range 250-2800nm instead of the standard 285-3000nm. Why is sensitivity above the highest-class specifications needed here? Normally a B class Spectrally Flat pyranometer would be more than enough to measure solar irradiance for PV plants at a fraction of the cost of an A-class. A-classes are normally reserved for meteorological and scientific institutes.</p> <p>Would it be satisfactory to use a b-class pyranometer?</p>	
12.	<p>Appendix, Page 29 - Schedule 5: Why is the accuracy class 0.2 here? While it is possible to get commercial meters that can measure at class 0.2, that is usually reserved for PQAs (Power Quality Analyzers), not energy meters. While it is possible to attach a PQA and use it as an energy meter, the complexity and price increases, without giving any measurable benefit to the energy measurement. Also, while it is possible to measure at class 0.2 at low A, at only 10 times the cost of a class 1 measurement, at higher Amperes the cost of this level of accuracy increases astronomically.</p> <p>Would a class 1, energy meter be acceptable?</p>	<p>High standard equipment is required all over. The bidder can provide an alternative, including the proper justification. A quotation should be provided accordingly.</p>