

## Pre-Bid Meeting Clarifications and Responses

Category	Query	Response
<b>Inverter Specifications</b>	The tender document does not clearly specify the capacity and quantities of inverters required. Could you provide detailed information on capacities and quantities for each building?	Details are given in Section 3.1 for each package. Package 1: Islamabad Campus: <b>300-350 KW</b> Package 2: Gulshan Iqbal Campus: <b>250 KW</b> Package 3: Abdul Haq Campus: <b>80 KW</b>
<b>Structure Design, Dimensions and Wind Load</b>	The Bill of Quantities (BOQ) specifies dimensions of girders and C-channels, but technical specifications require wind resistance of 140 km/h. Can dimensions be altered?	Dimensions can be adjusted if necessary to meet wind load requirements. Bidders must justify any deviations with detailed technical documentation.
	Specify the front height of the structure above the tile level and tilt angle.	<b>For Package 1: Islamabad Campus Recommended front height:</b>  As per building requirements, but the minimum height from the roof level (lanter) must be 8 feet.  <b>Tilt angle:</b> Must be as per committed Annual Production, strength and stability. Adjustments require detailed technical justification.
		<b>For Package 2: Karachi Campuses</b> PV Mount Structure for Rooftop with Installation  Hot dip MS / Aluminum or material with more than 15 years of proven life for L2/L3 type standard structure (or as per suitable approved design).  The mounting structure should be Galvanized, not less than 90 microns (in the case of Hot-dip ASTM compliant).  <b>Tilt angle:</b> Must be as per committed Annual Production, strength and stability. Adjustments require detailed technical justification.

	Provide details of materials used for heatproofing, including dimensions and height.	Heatproofing in the Islamabad Campus is 1.5 feet for each building.
<b>Energy Generation Commitment</b>	Specify: Minimum annual energy generation to be guaranteed by the system. Allowed system degradation rate over the years. Reference conditions for energy generation (irradiance, temperature, etc.). Penalties for underperformance relative to guaranteed energy commitment.	<b>Minimum Annual Average Production:</b> Package 1 (Islamabad Campus): <b>300,000 Units.</b> Package 2 (Gulshan Campus): <b>340,000 Units.</b> Package 2 (Abdul Haq Campus): <b>110,000 Units</b> <b>(Affidavit Required)</b> The bidder must provide an affidavit for guaranteed annual energy generation (kWh) for two years. Penalty for underperformance as per GCC Clause 16 (SCC Clause 12).
	Whether periodic performance reporting or third-party verification is required.	Periodic performance reporting is required. Third-party verification may be requested during the Operation and Maintenance (O&M) period.
<b>Generator specifications</b>	Generator specifications, including capacity and operational parameters.	<b>Islamabad Campus:</b> Generator 1: 200 kVA, Generator 2: 100 kVA, Generator 3: 80 kVA, capable of synchronizing with the solar PV system.
		<b>Gulshan Iqbal Campus:</b> MSC block: 150 kva BSC block: 135 kva, 110 kva (Two generators)
		<b>Abdul Haq campus</b> 35 kva (3 generators)
<b>Cable Specifications</b>	Must we strictly follow BOQ cable sizes, or are adjustments allowed?	Deviations are allowed, provided the bidder justifies them with design calculations and documentation.
	Should deviations be justified with calculations or documentation?	Yes, detailed calculations and technical documentation are required for deviations.
<b>Zero Export device</b>	Required in all three campuses?	Required for restricting export to Grid till installation of Net Metring. <b>Required for Islamabad Campus only (Package 1)</b>