

## TECHNICAL EVALUATION REPORT

(As Per Rule 35 of PP Rules, 2004)

1. Name of Procuring Agency: ...National Disaster Management Authority.....
2. Method of Procurement: ..... Open competitive bidding.....
3. Title of Procurement: ..... Installation of Solar Power System ....
4. Tender Inquiry No.: ..... TN-16(2025-26).....
5. Date & Time of Bid Closing: ..... 15-1-2026 at 1100 hours.....
6. Date & Time of Bid Opening: ... Technical 15-1-2026 at 1130 hours
7. No of Bids Received: .....07.....
8. Criteria for Bid Evaluation: .....As per bidding documents .....
9. Details of Bid(s) Evaluation: .....As detailed below.....

Name of the firm	Technical compliant / Non-compliant	Rule/Regulation/SBD*/Policy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.
M/s Arista Solutions	Non-Compliant	Detailed evaluation report is attached
M/s M/s I4 Junction	Non-Compliant non-submission of the original bid security	

Signature: .....



Official Stamp: .....

**Abdul Latif**  
Director (Proc)  
National Disaster Management Authority  
Prime Minister's Office, Islamabad

# **TECHNICAL EVALUATION PROFORMA – SOLAR POWER SYSTEM**

**Annex 'B'**

Ser	Specifications		C/NC	M/s Arista Solutions	
1.	General Requirements		The system shall be designed, supplied, installed, tested, and commissioned by a qualified OEM/installer, firm.	C/NC	NC
			All equipment must comply with IEC, ISO, and relevant national standards for solar PV installations.	C/NC	NC
			The system shall operate reliably under local climatic conditions with an expected life cycle of 25 years for PV modules and 10 years for inverter.	C/NC	NC
			All components must be brand-new, high- efficiency, and from reputed manufacturers.	C/NC	NC
			Contractor shall provide all accessories, connectors, mounting structures, wiring, earthing, lightning protection, and documentation.	C/NC	NC
2.	Solar PV Power	PV Modules	Type: Grande -A Tier I Solar Panels Bifacial N Type (12 years manufacturing and 25 years performance Warranty) (Company Standard warranty)	C/NC	C
			Capacity: Total installed capacity ≥ 10,000 Wp	C/NC	C
			Module wattage: 600+Wp each (or equivalent)	C/NC	C
			Efficiency: ≥ 20%	C/NC	C
			Cell type: 144 half-cut cells or equivalent	C/NC	C
			Frame: Anodized aluminum, corrosion resistant	C/NC	C
			Glass: Tempered, ≥3.2 mm, low-iron, anti- reflective	C/NC	C
			Junction Box: IP67/IP68 with bypass diodes	C/NC	C
			Standards Compliance:		
			IEC 61215, IEC 61730	C/NC	C
			PID resistance as per IEC 62804	C/NC	C
			Warranty:		
			Product: 10 years	C/NC	C
			Performance: 25 years (80% output minimum)	C/NC	C
3.	Solar Mounting Structure	Array	Material: I beam elevated with U channel Structure (Leadoxide and Paint work)	C/NC	C
			Design: Fixed tilt as per site latitude (adjustable optional)	C/NC	C
			Wind Load Resistance: ≥ 150 km/h	C/NC	C
			Installation: Ground-mount or rooftop as required	C/NC	C

*Xau*



			Specifications	C/NC	M/s Arista Solutions
			Standards: IS 875 / IEC structural safety guidelines	C/NC	C
4.	Hybrid Solar Inverter – 8 kW		<b>Electrical Specifications:</b>		
			Type: Hybrid (Solar + Grid + Battery)	C/NC	C
			Rated Power: 8 kW (continuous)	C/NC	C
			Input Voltage Range (PV): 120–500 V DC	C/NC	C
			Maximum PV Input Power: ≥ 10 kW (For charging of batteries during day time)	C/NC	C
			MPPT: Minimum 2 MPPT trackers	C/NC	C
			<b>Efficiency:</b>		
			PV–AC efficiency ≥ 97%	C/NC	C
			MPPT efficiency ≥ 99%	C/NC	C
			<b>AC Output:</b>		
			Voltage: 230V ± 5% single-phase / 400V three-phase (as required)	C/NC	C
			Frequency: 50 Hz	C/NC	C
			Surge Rating: Min 2x surge capacity for 5 seconds	C/NC	C
5.		Functional Features	<b>Smart monitoring via Wi-Fi/GPRS/RS485:</b>		
			LCD touchscreen/LED display	C/NC	C
			Automatic grid changeover	C/NC	C
			Programmable charging modes (Solar First / Grid First / Hybrid)	C/NC	C
			Anti-islanding protection	C/NC	C
6.		Protection	<b>PV reverse polarity:</b>		
			Overload/Short circuit	C/NC	C
			DC/AC surge protection (SPD Type II minimum)	C/NC	C
			Battery overcharge/discharge	C/NC	C
			Over-temperature protection	C/NC	C
7.		Compliance	IEC 62109-1, 62109-2	C/NC	C
			IEC 61683 (efficiency)	C/NC	C
			IEC 62116 (anti-islanding)	C/NC	C
8.		Warranty	Minimum 5 years, extendable to 10 years.	C/NC	C
9.	Battery Bank (Optional / If Required)		<b>Type:</b> Lithium Iron Phosphate (LiFePO <sub>4</sub> ) / VRLA Gel	C/NC	C
			<b>Total Capacity:</b> 10–15 kWh (as required for backup)	C/NC	C
			<b>Depth of Discharge:</b> ≥ 80%	C/NC	C
			<b>Battery Management System (for LiFePO<sub>4</sub>):</b>	C/NC	C
			Built-in BMS with cell balancing	C/NC	C

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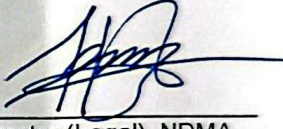
Ser	Specifications		C/NC	M/s Arista Solutions		
			<b>Cycle Life:</b>			
			LiFePO <sub>4</sub> : ≥ 6000 cycles @ 80% DOD	C/NC	C	
			Gel: ≥ 1500 cycles @ 50% DOD	C/NC	C	
10.		Warranty	LiFePO <sub>4</sub> – 5 years / VRLA – 3 years	C/NC	C	
11.	Cabling, Earthing & Protection	Cables	Type: UV-resistant, XLPE/XLPO solar DC cable	C/NC	C	
			Rating: 1000/1500 V DC for solar	C/NC	C	
			Standards: IEC 62930 / TUV certified	C/NC	C	
12.		Earthing	Dedicated DC earthing, AC earthing, and lightning protection	C/NC	C	
			Earth resistance: ≤ 1 ohm	C/NC	C	
13.		Protection Devices	DC isolator switch	C/NC	C	
			AC isolator switch	C/NC	C	
			SPD (Type II minimum, Type I if lightning- prone area)	C/NC	C	
			MCB/MCB distribution board	C/NC	C	
14.	Monitoring System		<b>Real-time monitoring of:</b>			
			PV production	C/NC	C	
			Battery SOC	C/NC	C	
			Grid interaction	C/NC	C	
			Load consumption	C/NC	C	
			Accessible via Web + Mobile App	C/NC	C	
			Remote fault diagnostics	C/NC	C	
15.	Solar LED Lights	Solar Street/ Area/ Gar den Light Components	LED Power: 150-200 W high-efficiency LEDs	C/NC	C	
				Lumen Output: 3000 lumens	C/NC	C
				Lighting Mode: Automatic dusk-to-dawn + dimming	C/NC	C
				Body Material: Aluminum alloy, corrosion resistant	C/NC	C
				Ingress Protection: IP65/IP66 weatherproof	C/NC	C
				Backup: Minimum 12 hours, ≥ 2 nights autonomy	C/NC	C
16.		Documentation & Deliverables	System design diagrams	C/NC	C	
			SLD (Single Line Diagram)	C/NC	C	
			PV Syst / equivalent generation report	C/NC	C	
			Product datasheets & compliance certificates	C/NC	C	
			Operation & Maintenance manual	C/NC	C	
			Warranty certificates	C/NC	C	
17.	Testing Commissioning		Functional testing of inverter, PV modules, and protection systems	C/NC	NC	
			Insulation resistance test	C/NC	NC	

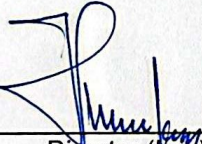
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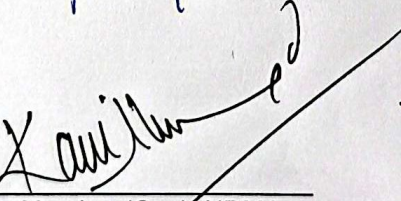


Specifications			C/NC	M/s Arista Solutions
18.	Warranty & Support	Polarity check	C/NC	NC
		Performance test at full load	C/NC	NC
		Street light functional test	C/NC	NC
		PV Modules: 10 years product, 25 years performance	C/NC	C
		Inverter: ≥ 5 years	C/NC	C
		Batteries (if included): 3–5 years	C/NC	C
		Solar Lights: 2–3 years	C/NC	NC
		Minimum 1Year on-site service support	C/NC	NC
Compliance/ Non-Compliance				Non Compliance

  
Deputy Manager (Log), NDMA  
Member

  
Director (Legal), NDMA  
Member

  
Director (Log), NDMA  
Secretary

  
Member (Ops), NDMA  
President Technical Committee