P-13

वसई विरार शहर महानगरपालिका

जा.क्र.वविशम/मु.विद्युत/९८४/२०२५
दिनांक: -२० /०३ /२०२५

"कोटेशन नोटीस"

वसई विरार शहर महानगरपालिकेच्या कार्यक्षेत्रातील खाली उल्लेख केल्याप्रमाणे काम करावयाचे असुन सदर काम करण्यास इच्छुक ठेकेदार यांनी त्यांच्या लेटरपॅडवर खाली उल्लेख केलेल्या कामांच्या बाबींचे दर (सर्व कर व मजुरी खर्चासह) दि. २६ /०३/२०२५ रोजी पर्यंत वसई विरार शहर महानगरपालिका, मुख्य कार्यालय, विरार (प.) यांचेकडील आवक जावक शाखेकडे सादर करावे.

सुचना: -

१) मुदतीपेक्षा उशिरा, अर्धवट भरलेले किंवा खोडाखोड केलेले कोटेशन स्विकारण्यात येणार नाहीत.

२) यापुर्वी आलेल्या कोटेशनपैकी कोणतेही एक कोटेशन स्विकारण्याचा अथवा सर्व कोटेशन नाकारण्याचा अधिकार महानगरपालिकेने राखून ठेवला आहे.

३) ठेकेदाराने दर सादर करताना सर्व कर, मजुर, वाहतुक व हमाली खर्चासह सादर करावेत.

४) सदर दर हे अंदाजपत्रकात समाविष्ठ करावयाचे असल्याने मंजुर पुरवठाधारकांस कोणतीही आगाऊ रक्कम दिली जाणार नाही.

१	कामाचे नाव	:-	महानगरपालिका कार्यक्षेत्रातील विविध मुख्य चौक, उद्यान व तलाव इ. ठिकाणी सोलार ट्री (Solar Tree) बसविणे.
२	कोरे कोटेशन फॉर्म मिळण्याचा कालावधी	:-	दि. २१ /०३ /२०२५ रोजी ते दि. २८/०३/२०२५ रोजी कार्यालयीन कामकाजाच्या वेळेत
३	कोटेशन स्विकारण्याची तारीख व वेळ	:-	दि. २१ /०३ /२०२५ रोजी दु.३:०० वाजे पर्यंत
४	कोटेशन उघडण्याची तारीख व वेळ	:-	दि. २१ /०३ /२०२५ रोजी साय.४:०० वाजे पर्यंत

सोबत :- कोटेशन फॉर्म जोडले आहे.

(अमोल जाधव)
प्र.कार्यकारी अभियंता (विद्युत)
वसई विरार शहर महानगरपालिका

NAME OF WORK: - Installation of solar tress at various locations like Main Chowk, gardens and near ponds etc. within the jurisdiction of the municipal corporation.

QUOTATION FORM

Sr. No.	Material	Quantity	Unit	Rates	
				In figure	In words
1	**Solar Tree: -** **Capacity 5 kW** **Specification as per given below**	1	Nos.		

Technical Specification: -

Section	Specification	Details
Solar Tree System	Solar PV Modules	Minimum capacity of 280 Watts per panel
	MS Solar Tree Structure with FRP solar mounting structure	Designed for stability in wind velocities up to 200 km/h
	Hybrid Inverter	Minimum capacity of 5 KW
	Distribution Boxes	Separate AC and DC distribution boxes for safety and efficiency
Structural Specifications	LED Lighting	Decorative 20W LED lighting strips around the center for aesthetic purposes
	Portable Design	Modular structure allowing for easy transport and installation
	Material	Metal steel, pre-galvanized for durability
	Height	7 meters
	Width	3.5 meters
	Capacity	Up to 5000- 5600 Watts per tree

Foundation	Foundation	M-20 grade reinforced cement concrete foundation by considering the safe soil bearing capacity at site as 10 T/sq.m at 1.5m depth including supply of steel, concrete, excavation and fixing provided nut bolts with the help of template duly plastered
Electrical Specifications	Total number of solar panel heads	Minimum 19
	LED heads	Minimum 19
	Installed power for each LED head	Approximately 20W
	Solar panel voltage (open circuit)	About 32V
	Peak power for each panel	About 280W
	Maximum luminous flux for each head	650-850 Lm
Maximum Power at STC	Optimum Operating Voltage	31.6 V
	Optimum Operating Current	9.09 A
	Open Circuit Voltage	38.32 V
	Short Circuit Voltage	9.65 A
	Module Efficiency	15.47%
	Maximum System Voltage	1000 VDC
	Maximum Series Fuse Rating	32 A
PV Array	Module Type	Mono-crystalline modules as per IEC 61215 or IEC 61646 standards
	Efficiency	Equal to or greater than 16% under STC
	Safety Standards	Must qualify IEC 61730 Part I and II
	RFID Tag	Capability to provide RFID tags for modules
	Warranties	Material Warranty: Minimum of five years for defects due to manufacturing or material quality
		Performance Warranty: Electrical degradation not exceeding 20% over 25 years, and not more than 10% after ten years
	IP Rating	IP65
Inverter	Voltage Source	Microprocessor assisted, output regulation
	Output Voltage	415VAC / 230V AC (+20%, -20% V AC) site specific
	Frequency	50 Hz (+3 Hz, -3 Hz)

	Continuous Rating	KV (rated +10%) with Import/Export net metering
	Total Harmonic Distortion	Less than 3%
	Operating Temperature Range	0 to 60 deg C
	Humidity	95% non-condensing
	Housing Cabinet	PCU to be housed in a suitable switch cabinet, IP20 (Minimum) for indoor, IP-65 (Minimum) for outdoor
	PCU Efficiency	98% and above at full load
	Power Factor	> 0.9

Other Important Features/Protections of PCU	Mains (Grid) Over-Under Voltage and Frequency Protection	Protection against voltage and frequency fluctuations
	Overload Capacity	200% of continuous rating for 10 seconds
	Self-Commutated PCU	Utilizes a circuit topology and components suitable for high conversion efficiency and reliability
	Maximum Power Point Tracking (MPPT)	Ensures maximum possible power is obtained from the PV module
	Grid Islanding Protection	Full proof protection to disconnect grid and PV power in case of grid failure
	Compliance with Standards	Complies with IEC/Equivalent BIS standards for efficiency measurements and environmental tests
	Environmental Testing for MPPT Units	Qualified as per IEC 60068- 2(1, 2, 14, 30)/Equivalent BIS STD
	Junction Boxes/Enclosures	IP 65 (for outdoor)/IP 54 (indoor) as per IEC 529 specifications
	Tested from Approved Test Centers	PCUs/Inverters should be tested from MNRE approved test centers/NABL/BIS/IEC accredited laboratories
	Parallel Operation Capability	Capable of operating in parallel with the grid utility service
	Withstand Unbalanced Output Load	Up to 50%
	Shutdown/Standby Mode Conditions	For insufficient solar power output, utility-grid over or under voltage, and utility-grid over or under frequency

Other Important Features/Protections of PCU	Electromagnetic Interference (EMI)	PCU shall not produce EMI causing malfunction of nearby electronic and electrical instruments
	Communication and Remote Monitoring	Modbus protocol with LAN/WAN options and SCADA package
	Inverter with MPPT	Suitable for connecting to 415V, 3 phase AC LT voltage grid/230V, 1 Phase AC LT Voltage Grid
	Internal Cooling Arrangements	Includes exhaust fan and ducting for operation in non- AC environments

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