

FINANCIAL BID- FOR 80KWp GRID-TIED METAL ROOFTOP / RCC ROOF SOLAR PV POWER PLANT								
List	Sr.No.	Component Description	Specifications	Approved Make	Unit	Qty	Rate	Amount
Key Items	1.0	Solar PV Module	SITC of 550Wp, Monocrystalline Solar PV Modules with RIFD tag, IEC -61215, 61730 standard (Pallet package consisting of 31 nos of modules)	Luminous/Havells	Nos.	146		
	2.0	Solar grid-tied Inverter	SITC of 100kWp, 3Ph, Solar Grid-tie Inverter, System output voltage 415Vac, 50Hz	Luminous/Havells	Nos.	1		
	3.0	RMS	SITC of Remote monitoring device	Brand	Nos.	1		
	4.0	Aluminum Module Mounting Structure (MMS) complete set	Providing & fixing Aluminium partial rail module mounting structure (MMS) with min. 3.0 mm thickness & 70mm high rail section along with module fixing clamps & accessories for industrial metal sheet solar installation. structures should withstand 180 km/hr wind speed. (ON NEW SHED)	Reputed Indian make (for aggregate 80 kWp system)	KWp	15		
	4.1	MS tilted Module Mounting Structure (MMS) complete set	Providing & fixing MS module mounting structure (MMS) with profile section 100x40x15x2mm min. thickness 2.0 mm, to be jointed/welded on existing HDGI Structure and customized as per new module requirements. The jointed structure will be painted in silver. The new holes for mounting the modules will be made as per new modules size		KWP	65		
	4.3	SS 304 Fasteners for MMS	Providing & fixing of 10x25mm Dia nut & bolt set with single spring washer (2mm thick) & double plain washer		Nos.	200		
	4.4	SS 304 for Solar PV modules	Providing & fixing of 6x25mm Dia nut & bolt set with single spring washer (2mm thick) & double plain washer		Nos.	500		
CABLES	5.0	1C x 4 sq. mm Cu - DC Cable (Red & Black)	Supply and laying of 1.8 KV, DC Voltage grade, multi standard class-5 Annealed Tinned Copper conductor according to IEC60228 & XLPO insulation electron beam cross linked halogen free, LSOH Insulated Flame Retardant low smoke emission according to IEC607541-1 maximum conductor temperature for normal operating conditions 120 deg, UV Protected & Sheathed cable as per TUV 2PFG, 1169/08 for outdoor installation	Polycab/ Havells	Mtr.	1000		
	5.1	1cx16 sq. mm Cu wire (Earthing wire green)	Supply and laying of PVC insulated, Class-5 copper flexible conductor, 1.1kV grade, UV Protected ISI marked unarmoured cable for outdoor installation as per IS 1554 standards	Polycab/ Havells	Mtr.	500		
	5.2	4CX35sq. mm - AC Cu. Cable from Inverter to AC JB	Supply and laying of XLPE insulated, Class-5 copper flexible conductor, 1.1kV grade, UV Protected ISI marked unarmoured cable for outdoor installation as per IS 1554 standards		Mtr.	20		
	5.3	3.5Cx50sq mm- AC AL. Cable from ACDB to BUS BAR BOX AT BASEMENT	Supply and laying of AL. Arm. XLPE insulated strandred conductor, 1.1kV grade, ISI marked cable for outdoor installation as per IS 7098 standards		Mtr.	100		
	5.4	3.5Cx120sq mm- AC AL. Cable from BUS BAR BOX to LT Panel through LT CT Meter.	Supply and laying of AL. Arm. XLPE insulated strandred conductor, 1.1kV grade, ISI marked cable for outdoor installation as per IS 7098 standards		MTR	50		
ELECTRICAL PANELS	5.5	Complete Array Junction Box IP-65	Providing & fixing of IP-65 Enclosure Box, 16 in-16 out Type AJB with Structure/wall mounted type construction with following items: PVC Cable Glands, Air ventilating valve and internal wiring & connection.	Hansel/Fibox/Trinity Touch	Set	1		
			Providing & fixing of 25A, 1500Vdc Pull-out type 10 fuse set with fuse base at +Ve PV Array incomer side and provide 40A, 1000Vdc, 30nos. press fit connectors for each +ve output, -Ve incomer & outgoing for connection of 4/6 Sq. mm. Cu. Flexible DC solar cable, Fuse as per IEC 529.	Bussman/Mersen/Phoenix	Per Set	32		
			Providing & fixing of 40KA, 1000Vdc, 3pole Type-2 SPD, max. discharge current (In) at 8/20 microseconds shall be at least 40KA.	Schneider	Per set.	2		
	5.6	ACDB-1, Indoor wall mounted type	Providing & fixing of Polycarbonate electrical enclosure/panel Floor/wall mounted type construction with following items: Cable Glands, Air ventilating valve/lovers, Aluminium busbar rated 200A at 400V.	Fabricated as per design by reputed panel Mfg.	Elect. Panel	1		
			Providing & fixing of 40KA, 3pole, 500Vac, 50Hz, Type-2 SPD, As per IEC 61643-11/12, max. discharge current (In) at 8/20 microseconds shall be at least 40 KA.	Schneider	Nos.	1		
			Providing & fixing of 1No. 100A, 4P, 18KA, Adjustable type MCCB as incoming Cum Outgoing with 200A rating TPN busbar conforming to IEC 60947, part I, II and III/ IS 60947 part I, II and III.	Schneider	set	1		
	5.7	Interconnection MCCB Box	Providing & fixing of 1No. 200A, 4P, 18KA, Adjustable type MCCB as incoming Outgoing with 200A rating TPN busbar conforming to IEC 60947, part I, II and III/ IS 60947 part I, II and III.	Schneider	set	1		
LIGHTNING PROTECTION	6.0	LIGHTNING PROTECTION	Providing & laying 3 Metre. Radius at 2 metre. Height (Spikes Copper Ball, Spikes, MAST Plate, Copper Mast 14 mm, GI Mast 50mm dia, Insulator for GI Base Plate, GI Base Plate, Pin Fasteners	Copper	set	2		

EARTHING & LIGHTNING PROTECTION	7.0	Chemical Earthing Electrode with earth enhancing compound	Providing & fixing of Dia. 23.2mmx3.0 mtr. long steel rod with 250 micron Copper coated earthing electrode suitable for 18KA fault current along with 10kg earth enhancing chemical backfill compound as per IEC 62561-7 and 1 no. industrial Poly propylene plastic pit cover.	JMV/JEF Techno/VNT	Nos.	6		
	7.1	25x3 GI strip	Providing & laying of 25x3mm 120-micron hot dip GI strip with fixing accessories and insulator as & where required.	Reputed Indian Make	Mtr.	300		
	7.2	Lugs for AL cable	Providing & fixing of Suitable size of Aluminium cable lugs, Pin/Ring Type	Dowell/Comet	Nos.	20		
	7.3	Lugs for Cu cable	Providing & fixing of Suitable size of copper tube cable lugs Pin/Ring Type	Dowell/Comet	Nos.	30		
	7.4	Hardware	Providing & fixing of SS304 grade dia.8x25mm with double plain washer nut & bolt for earthing connection	Kapson/Kova	Lot	300		
	8.0	MC4 Connectors	Providing & fixing of MC4 compatible TUV certified connectors with pins, 32A, 1000V DC (For 4 & 6 sq. mm cable) for PV array, as per IEC 60947 and EN 50521 standards.	Elmex/Phoenix	Pair (Male & Female)	50		
	8.1	UPVC/HDPE Conduit Pipe	Providing & fixing of Heavy duty HDPE flexible Industrial grade UV protected conduit pipe - Dia.50/32 mm along with accessories & fixing arrangements for PV array, Earthing & other work.	Reputed Indian Make	Lot	10		
	8.2	Hardware/Anchor Fastener for AJB & inverter	Providing & fixing 4 nos. dia. 6 mmx75mm expansion bolts for fixing of AJB on a vertical wall	Hilti/equ.	Nos/AJB.	5		
	8.3		Providing & fixing 4 nos. dia. 6/8mmx75mm expansion bolts for fixing of ACDB on a vertical wall	Hilti/equ.	Nos/AC JB.	5		
	8.4	Miscellaneous consumable Items	Providing & fixing of Cable Tie 300mm long UV protected, PVC Ferrule, Cable tag, GI Wire Clips, GI saddle, PVC Gitti, Steel screw, PVC Electrical Tape 3/4" UV Protected (As per requirement) etc.	KSS/Giant Lock/Hellermann/SGI	Set	10		
	8.5	Danger Boards/ Signage	Providing & fixing of LT 440V & DC 1000V danger plate with Luminous Logo, As per IE act / IE Rules	Luminous - Standard	Set	2		
List	Sr.No.	Component Description	Specifications	Approved Make	Unit			
	9.0	Concrete Foundation for Structure (Solar Panel Mounting Stand)	IS 456 - 2000: Code of practice for plain and Reinforced concrete. IS 2911 (Part I/SEC-II)-1979: Code of practice for design and construction of pile foundation	M-20 Grade PCC	Lot	2		
CIVIL WORK	9.1	Earth pit Chamber construction	Construction of earth pit chambers with bricks of size 400x400x400 mm (L*B*H) with CI industrial earth pit chamber as per IS standard	Locally Available	Nos.	6		
	10	Cable tray	Supply & laying of 75MM wide HDGI cable tray with covered for DC/PVarray Cabling	Reputed Indian make	Lot	2		
Installation	11	Installation, testing & Commissioning with Grid	Installation, testing & commissioning of 80 grid-tied rooftop solar system with Existing Grid & DG sync system in the premises, complete in all respect including painting of footings, packing/unpacking, handling and forwarding of safely all materials.	Reputed Indian make	set	1		
Remarks	Total Amount							
	DISCOUNT IF ANY							
	TOTAL AMOUNT AFTER DISCOUNT							

Note:- 1.Power Generation 4 Units per KW Per Day(Average 320 Unit Daily)

2. Roof Size 23.5 Mtr *23.5 Mtr, (Center of the roof Tin Shade Space 11 mtr* 11 Mtr)