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PART - 2 : PRICE BID

**Tender document for Design, Engineering, Supply Installation, Testing and Commissioning of
16kWp Grid interactive Solar Photo Voltaic system at Indian Bank Head Office : Annexure Building
(KREST), New No:2, Jehangir Street, Chennai-600 001**

ISSUED TO

M/s. _____

(This document contains 05 pages)

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
1	Design, engineering, supply, installation, testing and commissioning (DESITC) of 16 kWp Solar Photovoltaic System (300Wp x 54 nos) as per technical specifications	01	Job					
2	DEITC of 20 kVA solar inverter as per technical specifications, 3phase, 415V	01	Job					
3	DEITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
4	DEITC of ACDB with all accessories control wiring and suitable rating MCCB (min 100A) etc to evacuate power, with 2 nos energy meters etc., with all necessary accessories. It shall be wall mounting as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
5	Earthing of solar panel structures / Inverters and power evacuation panel / ACDB							
5.1	DEITC of 100 MM Dia cast iron pipe 3mts long including all the accessories as per standard earth drawing, filling the same with alternate layers of charcoal, salt & river sand and making of brick masonry chamber 600 x 600 x150 MM with cement plastering both inside and outside. The chamber shall have the cast iron cover of 10 mm thick with cast iron frame.	04	Nos					
5.2	DEITC of 25 x 3 MM GI Strip to be clamped on wall, cable tray, buried in ground to interconnect the earth electrodes mentioned above (5.1) to the solar panel structures and power evacuation panel / ACDB panel (The GI strip shall be painted with green paint as per electrical inspectorate norms)	250	Mts					

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5.3	DESITC of 10MM Dia multi-stranded Cu wire, FRPVC insulated green coloured cable to be drawn in 20 MM Dia PVC conduit, 1.5MM thick to be clamped on wall, cable tray, buried in ground to interconnect the earth electrode with inverter neutral point	250	Mt					
6	DESITC of AC & DC cabling between panels and inverter with heat resistant insulated copper wires drawn in UPVC Conduit properly fixed on pedestals / suitable arrangement on the floor	01	Lot					
7	DESITC of 3.5 x 50 Sqmm aluminium armoured cable from ACDB panel to spare feeder of Lift main panel and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	100	Mt					
8	SITC of PC for monitoring of solar generation including all accessories viz CAT cable, router, modem, Ethernet switch etc as per technical specification	01	No					
09	SITC of CAT 6, 4 core cable drawn in 20MM DIA PVC Pipe 1.5 MM thick to be clamped inside the shaft from inverter to PC kept in the room where the PC is kept (Lift Head room)	10	Mt					
10	Design, fabrication, supply and installation of concrete pedestals of minimum M20 grade [(1:1 1/2:3) and the same shall be plastered with 12mm thick cement sand mortar of ratio 1:4 of 300mm wide x 450mm high to be fixed on terrace floor for supporting solar panel structures. And the pedestals shall be painted with exterior emulsion paint	01	Lot					

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11	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
12	Supply & Installation of safety items like fire extinguishers, fire buckets and danger boards / Sinages / Identification stickers on modules / inverters / Array junction box etc., / first aid kit etc., and safety mat at the location of inverters / ACDB panel etc., Shock treatment chart both in Hindi & English, as required and which found necessary as per electrical inspectorate norms	01	Lot					
13	Lightning Protection							
13.1	Modification and repairs of existing lightning protection system by checking the continuity of down conductors, measurement of earth resistance of earth electrodes and other connected works, which found necessary to complete the job and submission of report as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
14	Liasoning with Govt agencies (for project approval) and Preparation of as-built drawings, SLD etc., Liasoning with CEA / Government agencies (TEDA / MNRE) after, arranging inspection and getting approval and arrange for , subsidy etc. after completion	01	Job	-	-			
	SUB TOTAL - II			-	-			

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				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
15	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III)							
16	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
16.a	O&M During DL period	01	Year	-	-			
16.b	O&M for the 1st year after DLP	01	Year	-	-			
16.c	O&M for the 2nd year after DLP	01	Year	-	-			
16.d	O&M for the 3rd year after DLP	01	Year	-	-			
16.e	O&M for the 4th year after DLP	01	Year	-	-			
16.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV			-	-			
	GRAND TOTAL (I + II + III+IV)							

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