

**INDIAN BANK,
CORPORATE OFFICE,
No.254 - 260, Avvai Shanmugam Salai,
Royapettah, Chennai - 600 014.
Ph: 044-2813 4401 / 4308 / 4307, Fax: 044-28134021**

PART - 2 : PRICE BID

Tender document for Design, Engineering, Supply, Installation, Testing and Commissioning of 05 kWp Each (Total Capacity 35 kWp) Grid interactive Solar Photo Voltaic system at various location of Indian Bank, own premises in and around Chennai

ISSUED TO

M/s. _____

(This document contains 30 pages)

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 01 : E A PURAM BRANCH, Old No.48 New No. 111 , Luz Church Road, Near Nageswara Park, Mylapore Luz Church Road, Chennai 600 004								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DESITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DESITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DESITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	Earthing of solar panel structures / Inverters and power evacuation panel / ACDB							
5.1	DESITC 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	DESITC 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)	150	Mts					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	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			-	-			

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III) ----- (A)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV -----(B)			-	-			
	GRAND TOTAL (I + II + III+IV) - E A PURAM BRANCH ----- (C)							

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 02 :EGMORE BRANCH: New No.11, Old No.5,First Street, Sait Colony,Egmore / PT School Junction, Chennai – 600 008								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DEITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DEITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DEITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	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)	150	Mts					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	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			-	-			

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III) -----(D)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV -----(E)			-	-			
	GRAND TOTAL (I + II + III+IV)----- (F)							

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 03 : MANALI NEW TOWN BRANCH: No: 5, BANK STREET MANALI NEW TOWN, Manali New Town, Chennai – 600 103								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DESITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DESITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DESITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	Earthing of solar panel structures / Inverters and power evacuation panel / ACDB							
5.1	DESITC 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	DESITC 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)	150	Mts					

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	Liaisoning with Govt agencies (for project approval) and Preparation of as-built drawings, SLD etc., Liaisoning with CEA / Government agencies (TEDA / MNRE) after, arranging inspection and getting approval and arrange for , subsidy etc. after completion	01	Job	-	-			
	SUB TOTAL - II			-	-			

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III)------(G)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV------(H)			-	-			
	GRAND TOTAL (I + II + III+IV) MANALI NEW TOWN BRANCH ------(I)							

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 04 : Mylapore Branch: No.21,North Mada Street, Mylapore, Chennai – 600 004								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DESITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DESITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DESITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	Earthing of solar panel structures / Inverters and power evacuation panel / ACDB							
5.1	DESITC 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	DESITC 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)	150	Mts					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	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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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III)------(J)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV ------(K)			-	-			
	GRAND TOTAL (I + II + III+IV) Mylapore Branch ----- (L)							

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 05 : Purasaiwalkam Branch: 19, Narayana Guru Salai, Purasawalkam, Chennai – 600 112								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DEITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DEITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DEITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	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)	150	Mts					

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	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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Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III)------(M)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV -----(N)			-	-			
	GRAND TOTAL (I + II + III+IV) Purasaiwalkam Branch -----(O)							

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 06 : Royapuram Branch: 151, Mannarsamy Koil St, Royapuram, CHENNAI – 600 013								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DEITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DEITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DEITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	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)	150	Mts					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	Liaisoning with Govt agencies (for project approval) and Preparation of as-built drawings, SLD etc., Liaisoning with CEA / Government agencies (TEDA / MNRE) after, arranging inspection and getting approval and arrange for , subsidy etc. after completion	01	Job	-	-			
	SUB TOTAL - II			-	-			

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III) -----(P)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV -----(Q)			-	-			
	GRAND TOTAL (I + II + III+IV) Royapuram Branch -----(R)							

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
Location 07 : West Mambalam Branch: No.76/61, Arya Gowda Road, West Mambalam, CHENNAI – 600 033								
01	Design, engineering, supply, installation, testing and commissioning (DESITC) of 05 kWp Solar Photovoltaic System (300Wp x 17 nos) as per technical specifications	01	Job					
02	DEITC of 10 kVA solar inverter as per technical specifications, 3phase, 415V and safety mat shall be provided for operating personnel etc	01	Job					
03	DEITC of Weather proof IP-65 array junction box as per technical specifications (min 2 nos)	01	Job					
04	DEITC of ACDB with all accessories control wiring and suitable rating 32A / 36kA 4P MCCB to evacuate power, with 1 nos energy meters etc., with all necessary accessories and supply & installation of 1 no. 32A 4P, MCCB with suitable enclosure to terminate the solar power supply to the mains of the Branch, which includes all the necessary addition & modification works at the mains as per technical specifications and safety mat shall be provided for operating personnel etc	01	No					
05	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)	150	Mts					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
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	150	Mt					
06	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					
07	DESITC of 3.5 x 35 Sqmm Aluminium Armoured Cable from ACDB panel to mains and clamping the cables to the existing cable trays / wall etc with suitable GI Clamps in basement including terminations at both ends	75	Mt					
08	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					
09	DESI of GI structures for supporting the solar panels as per technical specifications	01	Lot					
10	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					

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
11	Lightning Protection							
	Supply and installation of lightning protection terminals as required to protect the entire building including the solar installation with GI strip / copper down conductors and earth pit as per IS standard (02 nos) each for Lightning terminal / mast as per technical specification Clause 12 page 54 of 72	01	Job					
	SUB TOTAL – I (Supply + Erection) inclusive of all taxes & duties							
12	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			-	-			

CONTRACTOR SIGNATURE AND SEAL

Sr No	Description	Qty	Unit	Supply		Installation		Total
				Rate	Amount	Rate	Amount	Amount
				(Rs)	(Rs)	(Rs)	(Rs)	(Rs)
13	Liaison with TANGEDCO for installing Net-Metering (bidirectional meter) at point of supply etc.	01	Job	-	-			
	SUB TOTAL - III			-	-			
	TOTAL (I + II + III) -----(S)							
14	Operation & Maintenance (O&M) of Solar PV System (To be considered for Tender evaluation purpose)			-	-			
14.a	O&M During DL period	01	Year	-	-			
14.b	O&M for the 1st year after DLP	01	Year	-	-			
14.c	O&M for the 2nd year after DLP	01	Year	-	-			
14.d	O&M for the 3rd year after DLP	01	Year	-	-			
14.e	O&M for the 4th year after DLP	01	Year	-	-			
14.f	O&M for the 5th year after DLP	01	Year	-	-			
	SUB TOTAL – IV -----(T)			-	-			
	GRAND TOTAL (I + II + III+IV) West Mambalam Branch -----(U)							

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Project: Design, Engineering, Supply, Installation, Testing and Commissioning of 05 kWp Each (Total Capacity 35 kWp) Grid interactive Solar Photo Voltaic system at various location of Indian Bank, own premises in and around Chennai

PROJECT COST SUMMARY

Location No.	NAME OF THE LOCATION	SUPPLY		INSTALLATION	SUPPLY + INSTALLATION	OPERATION & MAINTENANCE (O&M)		Grand Total (Inclu O&M)	
			TOTAL AMOUNT(RS)	TOTAL AMOUNT(RS)	TOTAL AMOUNT(RS)		TOTAL AMOUNT(RS)		TOTAL AMOUNT(RS)
01	E A PURAM BRANCH	A				B		C	
02	EGMORE BRANCH	D				E		F	
03	MANALI NEW TOWN BRANCH	G				H		I	
04	Mylapore Branch	J				K		L	
05	Purasaiwalkam Branch	M				N		O	
06	Royapuram Branch	P				Q		R	
07	West Mambalam Branch	S				T		U	
	Grand Total of All Locations = (No.01+ No. 02+No.03+ No.04+No.05+No.06+No.07)								

CONTRACTOR SIGNATURE AND SEAL