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PRICE BID
(PART – 2)

Tender document for Roof Top Solar Power Installation

At Indian Bank, buildings at Greater Kailash-10 Kwp, Shantiniketan-10 Kwp

Green Park-6 Kwp and Vivek Vihar- 6 Kwp

ISSUED TO

M/s._____

This document contains 18 pages

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
1	**Greater Kailash**							
1.1	DESITC (Design, engineering, supply, installation, testing and commissioning) of 550 Wp single glass Monocrystalline solar PV modules as per technical specifications to generate 10 Kwp to be installed on the terrace floor with suitable GI channels fixed to the concrete blocks to be kept on the terrace. The same shall confirm to technical specifications given in the tender (18 modules for 550Wp)	1	Lot					
1.2	Supply, fabrication and installation of 300mm wide 450mm high concrete blocks to be kept on the terrace without any chipping or grouting to support the GI channel frame	1	Lot					
1.3	Design, detailed engineering, fabrication of GI channels, angle etc including hot dip galvanizing the support frames for mounting the solar PV modules and to rest on the concrete blocks	1	Lot					
2	DESTIC of 10 KW solar inverter as per technical specifications	1	No					
3	DESTIC of DCDB fully loaded with SPD, fuses, terminals etc as per technical specifications	1	No					
4	DESTIC of IP-42 protected cubicle type ACDB, wall mounting fitted with following 3 nos LED type RYB indication lamps controlled by HRC fuses 1 no 32A 4P MCB 3 no copper wound CTs of ratio 32/5A class-0.5 10 Va 1 no electronic type KWH meter 1 set SPD of type 1+2 with suitable HRC fuse protection The panel shall confirm to technical specifications given in the tender	1	No					
5.1	Supply and installation of 17.2mm dia 2 Mt long low carbon steel earth electrode bonded with 250-micron copper with GI clamp to be installed in a suitable bore and filled with 50 Lbs of carbon bond environment friendly back filling compound. An RCC trough of size 300x300mm shall be provided with RCC cover for protecting the electrode. (2 nos for DC, 2 nos for AC and 2 no for Lighting arrestor)	6	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
5.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
5.3	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray etc from earth electrodes to inverter body, and ACDB	100	Mt					
5.4	DESTIC of AC and DC cabling with solar duty copper PVC insulated wires drawn in UPVC conduits to be neatly clamped on to the roof with suitable GI clamps for interconnection between solar modules, ARJ and inverter							
6	Power Cables	1	Lot					
6.1	DESTIC of 4x10 SQMM aluminium armoured XLPE cable from ACDB to 32A TP MCB fixed in the Main DB of the building to be routed through cable tray, vertical shaft etc as required including terminations at both ends with single compression gland and aluminium sockets. The gland earthing with 14 SWG copper wire and connecting same to earth grid is included in the scope							
6.2	DESTIC of 4C 10Sqmm copper PVC insulated unarmoured cable from inverter to ACDB including terminations at both ends	50	Mt					
7	Supply and installation of safety items like dry powder fire extinguishers, fire buckets, danger boards, signages, identification stickers on modules, inverters, ARJs etc, first aid kit, rubber mat to be spread below the inverters and AC DB as per BIS, shock treatment chart in laminated form with writings in English, and Hindi and other items as required as per standards and as per CEA regulations	10	Mt					
8	Lightning protection	1	Lot					
8.1	DESITC of 3- prong conventional copper lighting terminal to be fixed on a GI pipe on the building parapet wall with suitable anchoring with GI wire rope etc	2	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
8.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
10	Liaison with government agencies (for project approval) and preparation of as- built drawing, SLD etc, liaisoning with CEA/ MNRE/ govt agencies after arranging inspection and getting approval and arrange for subsidy after completion of work	1	No					
11	Liaison with BSES for installing Net metering (bi-directional meter) at point of supply (bi-directional Energy meter will be supplied by BSES)	1	Job					
12	Sub - Total value of work* (A)	1	Job					
	Operation and maintenance (O& M) of solar PV system (To be considered for tender evaluation purposes)	1	Job					
13	O&M during DL period							
13.1	O&M for the first year after DLP							
13.2	O&M for the second year after DLP	1	Year					
13.3	O&M for the third year after DLP	1	Year					
13.4	O&M for the fourth year after DLP	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
13.5	O&M for the fifth year after DLP	1	Year					
13.6	Sub - total for AMC for 5 years* (B)	1	Year					
	Grand total for supply and installation including AMC for 5 years* (A+B) exclusive of GST	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
1	**Green Park**							
1.1	DESITC (Design, engineering, supply, installation, testing and commissioning) of 550 Wp single glass Monocrystalline solar PV modules as per technical specifications to generate 10 Kwp to be installed on the terrace floor with suitable GI channels fixed to the concrete blocks to be kept on the terrace. The same shall confirm to technical specifications given in the tender (11 modules for 550Wp)	1	Lot					
1.2	Supply, fabrication and installation of 300mm wide 450mm high concrete blocks to be kept on the terrace without any chipping or grouting to support the GI channel frame	1	Lot					
1.3	Design, detailed engineering, fabrication of GI channels, angle etc including hot dip galvanizing the support frames for mounting the solar PV modules and to rest on the concrete blocks	1	Lot					
2	DESTIC of 6 KW solar inverter as per technical specifications	1	No					
3	DESTIC of DCDB fully loaded with SPD, fuses, terminals etc as per technical specifications	1	No					
4	DESTIC of IP-42 protected cubicle type ACDB, wall mounting fitted with following 3 nos LED type RYB indication lamps controlled by HRC fuses 1 no 32A 4P MCB 3 no copper wound CTs of ratio 32/5A class-0.5 10 Va 1 no electronic type KWH meter 1 set SPD of type 1+2 with suitable HRC fuse protection The panel shall confirm to technical specifications given in the tender	1	No					
5.1	Supply and installation of 17.2mm dia 2 Mt long low carbon steel earth electrode bonded with 250-micron copper with GI clamp to be installed in a suitable bore and filled with 50 Lbs of carbon bond environment friendly back filling compound. An RCC trough of size 300x300mm shall be provided with RCC cover for protecting the electrode. (2 nos for DC, 2 nos for AC and 2 no for Lighting arrestor)	6	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
5.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
5.3	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray etc from earth electrodes to inverter body, and ACDB	100	Mt					
5.4	DESTIC of AC and DC cabling with solar duty copper PVC insulated wires drawn in UPVC conduits to be neatly clamped on to the roof with suitable GI clamps for interconnection between solar modules, ARJ and inverter							
6	Power Cables	1	Lot					
6.1	DESTIC of 4x10 SQMM aluminium armoured XLPE cable from ACDB to 32A TP MCB fixed in the Main DB of the building to be routed through cable tray, vertical shaft etc as required including terminations at both ends with single compression gland and aluminium sockets. The gland earthing with 14 SWG copper wire and connecting same to earth grid is included in the scope							
6.2	DESTIC of 4C 10Sqmm copper PVC insulated unarmoured cable from inverter to ACDB including terminations at both ends	50	Mt					
7	Supply and installation of safety items like dry powder fire extinguishers, fire buckets, danger boards, signages, identification stickers on modules, inverters, ARJs etc, first aid kit, rubber mat to be spread below the inverters and AC DB as per BIS, shock treatment chart in laminated form with writings in English, and Hindi and other items as required as per standards and as per CEA regulations	10	Mt					
8	Lightning protection	1	Lot					
8.1	DESITC of 3- prong conventional copper lighting terminal to be fixed on a GI pipe on the building parapet wall with suitable anchoring with GI wire rope etc	2	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
8.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
10	Liaison with government agencies (for project approval) and preparation of as- built drawing, SLD etc, liaisoning with CEA/ MNRE/ govt agencies after arranging inspection and getting approval and arrange for subsidy after completion of work	1	No					
11	Liaison with BSES for installing Net metering (bi-directional meter) at point of supply (bi-directional Energy meter will be supplied by BSES)	1	Job					
12	Sub - Total value of work* (A)	1	Job					
	Operation and maintenance (O& M) of solar PV system (To be considered for tender evaluation purposes)	1	Job					
13	O&M during DL period							
13.1	O&M for the first year after DLP							
13.2	O&M for the second year after DLP	1	Year					
13.3	O&M for the third year after DLP	1	Year					
13.4	O&M for the fourth year after DLP	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
13.5	O&M for the fifth year after DLP	1	Year					
13.6	Sub - total for AMC for 5 years* (B)	1	Year					
	Grand total for supply and installation including AMC for 5 years* (A+B) exclusive of GST	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
1	**Shantiniketan**							
1.1	DESITC (Design, engineering, supply, installation, testing and commissioning) of 550 Wp single glass Monocrystalline solar PV modules as per technical specifications to generate 10 Kwp to be installed on the terrace floor with suitable GI channels fixed to the concrete blocks to be kept on the terrace. The same shall confirm to technical specifications given in the tender (18 modules for 550Wp)	1	Lot					
1.2	Supply, fabrication and installation of 300mm wide 450mm high concrete blocks to be kept on the terrace without any chipping or grouting to support the GI channel frame	1	Lot					
1.3	Design, detailed engineering, fabrication of GI channels, angle etc including hot dip galvanizing the support frames for mounting the solar PV modules and to rest on the concrete blocks	1	Lot					
2	DESTIC of 10 KW solar inverter as per technical specifications	1	No					
3	DESTIC of DCDB fully loaded with SPD, fuses, terminals etc as per technical specifications	1	No					
4	DESTIC of IP-42 protected cubicle type ACDB, wall mounting fitted with following 3 nos LED type RYB indication lamps controlled by HRC fuses 1 no 32A 4P MCB 3 no copper wound CTs of ratio 32/5A class-0.5 10 Va 1 no electronic type KWH meter 1 set SPD of type 1+2 with suitable HRC fuse protection The panel shall confirm to technical specifications given in the tender	1	No					
5.1	Supply and installation of 17.2mm dia 2 Mt long low carbon steel earth electrode bonded with 250-micron copper with GI clamp to be installed in a suitable bore and filled with 50 Lbs of carbon bond environment friendly back filling compound. An RCC trough of size 300x300mm shall be provided with RCC cover for protecting the electrode. (2 nos for DC, 2 nos for AC and 2 no for Lighting arrestor)	6	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
5.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
5.3	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray etc from earth electrodes to inverter body, and ACDB	100	Mt					
5.4	DESTIC of AC and DC cabling with solar duty copper PVC insulated wires drawn in UPVC conduits to be neatly clamped on to the roof with suitable GI clamps for interconnection between solar modules, ARJ and inverter							
6	Power Cables	1	Lot					
6.1	DESTIC of 4x10 SQMM aluminium armoured XLPE cable from ACDB to 32A TP MCB fixed in the Main DB of the building to be routed through cable tray, vertical shaft etc as required including terminations at both ends with single compression gland and aluminium sockets. The gland earthing with 14 SWG copper wire and connecting same to earth grid is included in the scope							
6.2	DESTIC of 4C 10Sqmm copper PVC insulated unarmoured cable from inverter to ACDB including terminations at both ends	50	Mt					
7	Supply and installation of safety items like dry powder fire extinguishers, fire buckets, danger boards, signages, identification stickers on modules, inverters, ARJs etc, first aid kit, rubber mat to be spread below the inverters and AC DB as per BIS, shock treatment chart in laminated form with writings in English, and Hindi and other items as required as per standards and as per CEA regulations	10	Mt					
8	Lightning protection	1	Lot					
8.1	DESITC of 3- prong conventional copper lighting terminal to be fixed on a GI pipe on the building parapet wall with suitable anchoring with GI wire rope etc	2	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
8.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
10	Liaison with government agencies (for project approval) and preparation of as- built drawing, SLD etc, liaisoning with CEA/ MNRE/ govt agencies after arranging inspection and getting approval and arrange for subsidy after completion of work	1	No					
11	Liaison with BSES for installing Net metering (bi-directional meter) at point of supply (bi-directional Energy meter will be supplied by BSES)	1	Job					
12	Sub - Total value of work* (A)	1	Job					
	Operation and maintenance (O& M) of solar PV system (To be considered for tender evaluation purposes)	1	Job					
13	O&M during DL period							
13.1	O&M for the first year after DLP							
13.2	O&M for the second year after DLP	1	Year					
13.3	O&M for the third year after DLP	1	Year					
13.4	O&M for the fourth year after DLP	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
13.5	O&M for the fifth year after DLP	1	Year					
13.6	Sub - total for AMC for 5 years* (B)	1	Year					
	Grand total for supply and installation including AMC for 5 years* (A+B) exclusive of GST	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
1	**Vivek Vihar**							
1.1	DESITC (Design, engineering, supply, installation, testing and commissioning) of 550 Wp single glass Monocrystalline solar PV modules as per technical specifications to generate 10 Kwp to be installed on the terrace floor with suitable GI channels fixed to the concrete blocks to be kept on the terrace. The same shall confirm to technical specifications given in the tender (11 modules for 550Wp)	1	Lot					
1.2	Supply, fabrication and installation of 300mm wide 450mm high concrete blocks to be kept on the terrace without any chipping or grouting to support the GI channel frame	1	Lot					
1.3	Design, detailed engineering, fabrication of GI channels, angle etc including hot dip galvanizing the support frames for mounting the solar PV modules and to rest on the concrete blocks	1	Lot					
2	DESTIC of 6 KW solar inverter as per technical specifications	1	No					
3	DESTIC of DCDB fully loaded with SPD, fuses, terminals etc as per technical specifications	1	No					
4	DESTIC of IP-42 protected cubicle type ACDB, wall mounting fitted with following 3 nos LED type RYB indication lamps controlled by HRC fuses 1 no 32A 4P MCB 3 no copper wound CTs of ratio 32/5A class-0.5 10 Va 1 no electronic type KWH meter 1 set SPD of type 1+2 with suitable HRC fuse protection The panel shall confirm to technical specifications given in the tender	1	No					
5.1	Supply and installation of 17.2mm dia 2 Mt long low carbon steel earth electrode bonded with 250-micron copper with GI clamp to be installed in a suitable bore and filled with 50 Lbs of carbon bond environment friendly back filling compound. An RCC trough of size 300x300mm shall be provided with RCC cover for protecting the electrode. (2 nos for DC, 2 nos for AC and 2 no for Lighting arrestor)	6	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
5.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
5.3	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray etc from earth electrodes to inverter body, and ACDB	100	Mt					
5.4	DESTIC of AC and DC cabling with solar duty copper PVC insulated wires drawn in UPVC conduits to be neatly clamped on to the roof with suitable GI clamps for interconnection between solar modules, ARJ and inverter							
6	Power Cables	1	Lot					
6.1	DESTIC of 4x10 SQMM aluminium armoured XLPE cable from ACDB to 32A TP MCB fixed in the Main DB of the building to be routed through cable tray, vertical shaft etc as required including terminations at both ends with single compression gland and aluminium sockets. The gland earthing with 14 SWG copper wire and connecting same to earth grid is included in the scope							
6.2	DESTIC of 4C 10Sqmm copper PVC insulated unarmoured cable from inverter to ACDB including terminations at both ends	50	Mt					
7	Supply and installation of safety items like dry powder fire extinguishers, fire buckets, danger boards, signages, identification stickers on modules, inverters, ARJs etc, first aid kit, rubber mat to be spread below the inverters and AC DB as per BIS, shock treatment chart in laminated form with writings in English, and Hindi and other items as required as per standards and as per CEA regulations	10	Mt					
8	Lightning protection	1	Lot					
8.1	DESITC of 3- prong conventional copper lighting terminal to be fixed on a GI pipe on the building parapet wall with suitable anchoring with GI wire rope etc	2	No					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
8.2	DESTIC of 25x3mm GI strip to be clamped on wall, cable tray to solar panel frames and DCDB to earth stations for DC earthing	100	Mt					
10	Liaison with government agencies (for project approval) and preparation of as- built drawing, SLD etc, liaisoning with CEA/ MNRE/ govt agencies after arranging inspection and getting approval and arrange for subsidy after completion of work	1	No					
11	Liaison with BSES for installing Net metering (bi-directional meter) at point of supply (bi-directional Energy meter will be supplied by BSES)	1	Job					
12	Sub - Total value of work* (A)	1	Job					
	Operation and maintenance (O& M) of solar PV system (To be considered for tender evaluation purposes)	1	Job					
13	O&M during DL period							
13.1	O&M for the first year after DLP							
13.2	O&M for the second year after DLP	1	Year					
13.3	O&M for the third year after DLP	1	Year					
13.4	O&M for the fourth year after DLP	1	Year					

Sr No	Description	Qty	Unit	Supply		Installation		Total Amount (Supply + Installation) (Rs.)
				Rate (Rs.)	Amount (Rs.)	Rate (Rs.)	Amount (Rs.)	
13.5	O&M for the fifth year after DLP	1	Year					
13.6	Sub - total for AMC for 5 years* (B)	1	Year					
	Grand total for supply and installation including AMC for 5 years* (A+B) exclusive of GST	1	Year					