



Annexure-A: FINANCIAL BID
BOQ (BILL OF QUANTITIES)

(a) Replacement of overhead line via cables:-

S.No	Particular	Unit	Qty	Rate	Amount
1	PVC XLPE Cable 4C x 185 Sq. mm , Alu. Arm - 1.1 KV	Per Mtr	140		
2	PVC XLPE Cable 4C x 400 Sq. mm, Alu. Arm - 1.1 KV	Per Mtr	800		
3	PVC XLPE Cable 3.5C x 120 Sq. mm, Alu. Arm - 1.1 KV	Per Mtr	120		
4	PVC XLPE Cable 3.5C x 240 Sq. mm, Alu. Arm - 1.1 KV	Per Mtr	60		
5	Intermediate Feeder Panel (location: Near sports office named as F1)With 294.8 kWp solar incomer Annexure 01	Each	1		
6	Intermediate Feeder Panel – (location: Near Library – named as F2) Annexure 02	Each	1		
7	MS Fabricated Steel	Kg.	200		
8	ASSEL Safe Electrode Earthing 393 HDG - 100M PIP with 3* BFC Electroditte.	Each	04		
9	ASSEL Safe Electrode Earthing 393 CP - 100M PIP with 3* BFC Electroditte.	Each	06		
10	Hot Dipped GI Strip	Kg.	200		
11	Flat Copper Strip	Kg.	30		
12	PVC Flexible Copper Wire 1C x 70 Sq.mm , Multi-stranded	Per Mtr	30		
13	Copper Lugs Heavy Duty 70 Sq.mm - Long Barrel	Each	06		
14	Brass Gland Double Compression 57mm	Each	12		
15	Brass Gland Double Compression 75mm	Each	08		
16	Aluminium Lugs 185 Sq.mm - Long Barrel - HD	Each	48		
17	Aluminium Lugs 400 Sq.mm - Long Barrel - HD	Each	32		
18	Aluminium Lugs 240 Sq.mm - Long Barrel - HD	Each	03		
19	Aluminium Lugs 120 Sq.mm - Long Barrel - HD	Each	04		
20	HDPE Pipe (Working Pressure PN06 PE 100 ID 140 suitable for 400 sq. mm x 04 c cable)	Per Mtr	1680		
22	HDPE Pipe (Working Pressure PN06 PE 100 ID 110 suitable for 240 sq. mm x 04 c cable)	Per Mtr	260		
23	Excavation of Cable Trench manuualy - Width 500 mm x Depth 650 mm	Per Mtr	510		
24	Laying ,Jointing of HDPE Pipe (with socket/hot plate method including material and labour)	Per Mtr	1930		
25	R.C.C Chamber for HDPE Pipe Gate Area suitable for 6 No. of 400 sq. mm 04 core PVC cable with RCC 150 mm Thick and 75 mm PCC Cover - HD - Chamber Cover to be Made with Angle ISMC 100 mm x 100mm x 6mm with appropriate Support.(chamber dimension) <i>Chamber dimensions ID 2000 mmx1200mmX1250mm</i>	Each	02		
26	R.C.C Chamber for HDPE Pipe suitable for 04 No.of 400 sq. mm 04 core PVC cable with RCC 100 MM Thick Cover - HD - Chamber Cover to be Made with Angle ISMC 100 MM x 100MM x 6MM with appropriate Support.	Each	10		

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	<i>Chamber Dimensions ID 1200 mmx 600mmX 700 mm</i>				
27	Labour Charges for Laying of LT Cable 4C x 185 Sq.mm , Alu.Arm	Per Mtr	140		
28	Labour Charges for Laying of LT Cable 3.5C x 120 Sq.mm , Alu.Arm	Per Mtr	120		
29	Labour Charges for Laying of LT Cable 4C x 400 Sq.mm , Alu.Arm	Per Mtr	800		
30	Labour Charges for Laying of LT Cable 3.5c x 240Sq.mm , Alu.Arm	Per Mtr	60		
31	Labour Charges for Installation of Safe Electrode Earthing	Job	10		
32	Concreting & Installation of Base Stand for LT Panels	Job	02		
33	Installation of LT Panels including Termination of LT Cables	Job	02		
34	Concreting of HDPE Pipe for Protection (Gate area)	Per Mtr	40		
35	Road Repairing Work including excavation of the existing road as per required level, including refilling, compacting and resurfacing of road with the same specification of the existing road. WBM- 300 MM, Prime coat-one layer, BM -02", Tech load-one layer, B.C-30 mm, Seat coat-06 mm	Per Sqr. Mtr.	Approx. 50 sqr meter		
36	Dismantling & Re - Installation of Road Pavers	Sq. Ft	4000		
37	Jointing kit 185 sqr mm compound type with installation	Per set	01		
38	Jointing kit 240 sqr mm compound type with installation	Per set	01		
39	Jointing kit 120 sqr mm compound type with installation	Per set	01		
40	Jointing kit 150 sqr mm compound type with installation	Per set	01		
41	Bus Bar 300 amp.	Per No.	02		
AMOUNT (a)					

(b) Basement cable work:-

S.No	Particular	Unit	Qty	Approx. Rate	Approx. Amount
1	PVC XLPE Cable 3.5C x 70 Sq.mm , Alu. Arm - 1.1 KV	Per Mtr	290		
2	PVC XLPE Cable 3.5C x 95 Sq.mm , Alu. Arm - 1.1 KV	Per Mtr	450		
3	Bus Bar Boxes F-3	Each	10		
4	Labour Charges for Laying of LT Cable 3.5C x 95 Sq.mm , Alu. Arm	Per Mtr	450		
5	Labour Charges for Laying of LT Cable 3.5C x 70 Sq.mm , Alu. Arm	Per Mtr	290		
6	Installation of Bus Bar Box	Per No.	10		
7	Brass Gland Double Compression 38MM	Each	08		
8	Brass Gland Double Compression 45MM	Each	12		
9	Aluminium Lugs 95 Sq.mm - Long Barrel - HD	Each	36		
10	Aluminium Lugs 70 Sq.mm - Long Barrel - HD	Each	24		
AMOUNT(b)					

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ANNEXURE 01

Intermediate Feeder Panel - Near Sports Office – F1			
S.N.	Particulars	Qty.	Unit
1	MS POWDER COATED ENCLOSURE		
2	Supply, fixing, testing & commissioning floor mounted out door type double door LT panel primer coated with powder coated SEIMMENS Grey paint & provided with required gasket for dust/vermin proof with degree of protection IP 55 suitable for 415Volt 3 phase, 50 Hz, 4 wire system fabricated out of CRCA sheet up to 2 mm thick (1.6 mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere Metre, Volt Metre, selector switches, frequency Metre, phase indicating lamp, Energy Metre complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted changeover switch/SFUs, etc. as required Suitable for 630 amp. Incoming MCCB, 800 amp. Solar MCCB and 250 amp. (04 no.) outgoing mccb Size 3400 mmx1875mmx600mm	1	Nos.
3	MAIN INCOMING		
4	MCCB 630Amp. FP 36KA T/M Adj.	1	Nos.
5	Rotary operating mechanism	1	Nos.
6	Spreader 630Amp. FP	2	Nos.
7	MCCB Aux.	2	Nos.
8	Digital MF Meter CL.1.0 With RS485	1	Nos.
9	Digital KWH Meter CL 1.0	1	Nos.
10	Phase Indication Light RED	1	Nos.
11	Phase Indication Light YELLOW	1	Nos.
12	Phase Indication Light BLUE	1	Nos.
13	ON Indication Light RED	1	Nos.
14	OFF Indication Light GREEN	1	Nos.
15	TRIP Indication Light AMBER	1	Nos.
16	Control MCB 2Amp. SP 10KA	3	Nos.
17	RCCT - Current Transformer 630/5A 15VA CL - 1	3	Nos.
18	OUTGOING - MCCB 4P 250A		
19	MCCB 250Amp. FP 36KA Adj.	4	Nos.
20	Rotary operating mechanism	4	Nos.
21	Spreader 250Amp. FP	8	Nos.
22	MCCB Aux.	8	Nos.
23	ON Indication Light RED	4	Nos.
24	OFF Indication Light GREEN	4	Nos.
25	TRIP Indication Light AMBER	4	Nos.

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26	Digital Ampere Meter CL 1.0 - 3R Display	4	Nos.
27	Digital KWH Meter CL 1.0	4	Nos.
28	Control MCB 2Amp. SP 10KA	12	Nos.
29	RCCT - Current Transformer 250/5A 10VA CL 1.0	12	Nos.
SOLAR INCOMING MCCB			
30	INCOMING - MCCB 4P 800 A		
31	MCCB 800 Amp. FP 36KA T/M Adj.	1	Nos.
32	Rotary operating mechanism	1	Nos.
33	Spreader 800Amp. FP	2	Nos.
34	MCCB Aux.	2	Nos.
35	ON Indication Light RED	1	Nos.
36	OFF Indication Light GREEN	1	Nos.
37	TRIP Indication Light AMBER	1	Nos.
38	Digital Ampere Meter CL 1.0 - 3R Display	1	Nos.
39	Control MCB 2Amp. SP 10KA	3	Nos.
40	RCCT - Current Transformer 800/5A 15VA CL 1.0	3	Nos.
41	Bus Bar-800 amp.4P-Phase 75 mmx12mm,Neutral 75 mmx12 mm	1	LS
MISCELLANEOUS			
42	Nuts, Bolts, Washers, Ferule Numbers, Cable Ties, Tie Base, Copper PVC Control Wire, Power Wire, Copper Thimbles, Panel Locks, I-Hooks, PVC Tape, Insulators E-type, L-Type , Round Type, MCB Chanel, Pvc Chanel, Connector Chanel, Connectors, Foam Ga	1	Nos.

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ANNEXURE 02

Intermediate Feeder Panel - Near Library – F2

Intermediate Feeder Panel - Near Library - F2			
S.N.	Particulars	Qty.	Unit
1	MS POWDER COATED ENCLOSURE		
2	Supply, fixing, testing & commissioning floor mounted out door type double door LT panel primer coated with powder coated SEIMMENS Grey paint & provided with required gasket for dust/vermin proof with degree of protection IP 55 suitable for 415Volt 3 phase, 50 Hz, 4 wire system fabricated out of CRCA sheet up to 2 mm thick (1.6 mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere Metre, Volt Metre, selector switches, frequency Metre, phase indicating lamp, Energy Metre complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted changeover switch/SFUs, etc. as required Suitable for 630 amp. Incoming MCCB, 250 amp. (04 no.) outgoing mccb Size 2200 mmx1875mmx600mm	1	Nos.
3	MAIN INCOMING		
4	MCCB 630Amp. FP 36KA T/M Adj.	1	Nos.
5	Rotary operating mechanism	1	Nos.
6	Spreader 630Amp. FP	2	Nos.
7	MCCB Aux.	2	Nos.
8	Digital MF Meter CL.1.0 With RS485	1	Nos.
9	Digital KWH Meter CL 1.0	1	Nos.
10	Phase Indication Light RED	1	Nos.
11	Phase Indication Light YELLOW	1	Nos.
12	Phase Indication Light BLUE	1	Nos.
13	ON Indication Light RED	1	Nos.
14	OFF Indication Light GREEN	1	Nos.
15	TRIP Indication Light AMBER	1	Nos.
16	Control MCB 2Amp. SP 10KA	3	Nos.
17	RCCT - Current Transformer 630/5A 15VA CL - 1	3	Nos.
18	OUTGOING - MCCB 4P 250A		
19	MCCB 250Amp. FP 36KA T/M Adj.	4	Nos.
20	Rotary operating mechanism	4	Nos.
21	Spreader 250Amp. FP	8	Nos.
22	MCCB Aux.	8	Nos.
23	ON Indication Light RED	4	Nos.
24	OFF Indication Light GREEN	4	Nos.

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25	TRIP Indication Light AMBER	4	Nos.
26	Digital Ampere Meter CL 1.0 - 3R Display	4	Nos.
27	Digital KWH Meter CL 1.0	4	Nos.
28	Control MCB 2Amp. SP 10KA	12	Nos.
29	RCCT - Current Transformer 250/5A 10VA CL 1.0	12	Nos.
30	Bus Bar-800 amp.4P-Phase 75 mmx12mm,Neutral 75 mmx12 mm	01	LS
MISCELLANEOUS			
31	Nuts, Bolts, Washers, Ferule Numbers, Cable Ties, Tie Base, Copper PVC Control Wire, Power Wire, Copper Thimbles, Panel Locks, I-Hooks, PVC Tape, Insulators E-type, L-Type, Round Type, MCB Chanel, Pvc Chanel, Connector Chanel, Connectors, Foam Ga	1	Nos.

Academic block basement– F3

3	Academic block basement– F3		
S.N.	Particulars	Qty.	Unit
1	MS POWDER COATED ENCLOSURE - OUTDOR TYPE		
2	Powder Coated Siemens Grey Panel Box made out of 1.6 MM thick Steel Sheet - DOUBLE DOOR OUTDOOR TYPE - Dimension - 800MM x 250MMx 250MM	1	Nos.
3	BUSBARS		
4	250 Amp. FP 415Volts 3Phase 4Wire Colour Coded AL. busbars (for Outgoings & Incomings)	1	LS
5	Phase Bus bar :- 1R x 25MM x 10 MM		
6	Neutral Bus bar :- 1R x 25MM x 10 MM		
7	MISCELLANEOUS ACCESSORIES		
8	Nuts, Bolts, Washers, Ferule Numbers, Cable Ties, Tie Base, Copper PVC Control Wire, Power Wire, Copper Thimbles, Panel Locks, I-Hooks, PVC Tape, Insulators E-type, L-Type, Round Type, MCB Chanel, Pvc Chanel, Connector Chanel, Connectors, Foam Ga	1	Nos.

Approved make list:- To ensure the quality, following makes are approved for items/material required for Electrical Maintenance work:

S.NO	ITEM	APPROVED MAKES
1.	LT PANELS - INDOOR / OUTDOOR (9 Tank Process Powder Coated)	ADLEC / TRICOLITE / AMEC GLOBAL INDIA PVT. LTD / TRISQUARE / LEGRAND – XL3 / SIEMENS – SIVACON / SCHNIEDER – PRISMA/Equivalent

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2.	MCCB - MOULDED CASE CIRCUIT BREAKER THERMAL MAGNETIC / MICROPROCESSOR ICU=ICS=100%	SIEMENS (3VT) / SCHNIEDER (CVS) / ABB – (XT) / LEGRAND – (DPX)/ Equivalent
3.	RESIN CAST LT CT	MRM – PROCOM / POWERMAT / NEWTECH /Equivalent
4.	LED INDICATING LAMP	SALZER – L&T / SCHNIDER / SIEMENS / POWERMAT /Equivalent
5.	MINIATURE CIRCUIT BREAKER – MCB	SCHNIEDER / SIEMENS / ABB / C&S / LEGRAND/Equivalent
6.	DIGITAL PANEL METER	SCHNIEDER/ SIEMENS / ABB / ELMEASURE/Equivalent
7.	LT PANEL CONTROL WIRING	LAPP / BELDEN / HELUKABEL /Equivalent
8.	ALUMINIUM BUSBAR	HINDALCO / BALCO /Equivalent
9.	CT SHORTING TERMINAL, TERMINAL BLOCK	FTC / PHOENIX CONTACT / ELMEX / CONNECTWELL/Equivalent
10.	DOUBLE COMPRESSION BRASS GLANDS	ASCON / COMET / DOWELLS/Equivalent
11.	ALUMINIUM / COPPER LUGS	ASCON / COMET / DOWELLS/Equivalent
12.	PVC XLPE CABLE 1.1KV-ALLUMINIUM ARMORED	HAVELLS / KEI / FINOLEX/Equivalent
13.	HDPE PIPE	VECTUS / EON PLAST / TECHNO FIBER/Equivalent

Note:

1. ALL MATERIAL SHALL BE ONLY USED AS PER THE APPROVED MAKES SPECIFIED IN THE ABOVE LIST.
2. THE CONTRACTOR SHAL SUBMIT SAMPLES BEFORE SUPPLY OF MATERIAL AS PER REQUIRED BY ENGNIER IN CHARGE

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