

Details BOQ of Electrical System at Main Building and Annex Building

SL.No.	Description	Qty	Unit	Unit Rate	Total Price
1	<p>MAIN / ANNEX BUILDING PANEL:- Free floor mounting dead front compartmentalized type panel fabricated from 14 SWG CRCA sheet for the enclosure & 16G SWG CRCA sheet for panel door and other barriers and with powder coated paint finish of light gray as per IS:631 after proper treatment through 7 tank pickling for antirust and surface preparation. The panel will be fitted with the following equipments and wired for necessary protection & indicating equipments as detailed below :</p> <p>INCOMER :-</p> <p>1 no. 125 A MCCB and 1 no. 125A Auto Change Over for DG incomer & CESC POWER should be electrically interlocked so that any one of them can be switch ON at a time.</p> <p>OUT GOING:-</p> <p>8 Nos. 63A 4P MCB's</p> <p>9 Nos. 32A 4P MCB's</p> <p>METERING ARRENGEMENT:-</p> <p>Incomer:-</p> <p>a) 1 no. volt meter (digital) 0-600V with S/SW</p> <p>b) 1 no. ammeter (digital) 0-600A with S/SW</p> <p>c) 3 nos. C.T.S (resin cast) 600/5A. 15VA</p> <p>d) 6 nos. Indicating lamps (DG and CESC/SOLAR)</p> <p>Bus-bar Rating:</p> <p>200 A rating TPN Al bus-bar shall mounted on non-hygroscopic DMC/Epoxy-mounted bus support insulator. T.P.N vertical/ horizontal droppers in bus alley having continuous rating equal to 75% cumulative current rating of the MCB connected.</p> <p>The outgoing terminals of the MCB's shall be connected to a 4 way screw type terminal block mounted in cable alleys.</p> <p>C.T. circuit wiring to be done with 4 mm² PVC insulated copper wire & other wiring to be done with 2.5 mm² PVC insulated copper wire.</p> <p>All electrical circuit joints shall be done with cadmium plated nuts & bolts with 2 nos. plane washer & 1 no. spring washer</p>	2	sets		
2	<p>PUMP PANEL:- Free floor mounting dead front compartmentalized type panel fabricated from 14 SWG CRCA sheet for the enclosure & 16G SWG CRCA sheet for panel door and other barriers and with powder coated paint finish of light gray as per IS:631 after proper treatment through 7 tank pickling for antirust and surface preparation. The panel will be fitted with the following equipments and wired for necessary protection & indicating equipments as detailed below :</p> <p>INCOMER :-</p> <p>1 no. 125A MCCB and 1 no. 125A Manual Change Over for DG incomer & CESC POWER</p> <p>1 nos 220V 63A Manual Change Over for DG incomer & Solar backup Power.</p> <p>OUT GOING:-</p> <p>4 Nos. 63A 4P MCB's</p> <p>2 Nos. 32A 4P MCB's</p> <p>6 Nos. 32A 2P MCB's</p> <p>METERING ARRENGEMENT:-</p> <p>All Transformer Incomer:-</p> <p>a) 1 no. volt meter (digital) 0-600V with S/SW</p> <p>b) 1 no. ammeter (digital) 0-600A with S/SW</p> <p>c) 3 nos. C.T.S (resin cast) 600/5A. 15VA</p> <p>d) 6 nos. Indicating lamps</p> <p>Bus-bar Rating:</p> <p>200 A rating TPN Al bus-bar shall mounted on non-hygroscopic DMC/Epoxy-mounted bus support insulator. T.P.N vertical / Horizontal droppers in bus alley having continuous rating equal to 75% cumulative</p>	1	sets		

	The outgoing terminals of the MCB's shall be connected to a 4 way screw type terminal block mounted in cable alleys. A continuous earth bus of size 50 x 6 mm Al. flat to be run along the length of the panel with adequate projection on both sides for connecting to external earth grid. All electrical circuit joints shall be done with cadmium plated nuts & bolts with 2 nos. plane washer & 1 no. spring washer				
3	D.G Set:-	No.	2		
	Supplying, installation, testing and commissioning of AQUASTIC ENCLOSER type Diesel Generating Set of capacity 45 KVA . 415 Volts, 3- phase, 4-wire, with batteries, battery charger, Engine & AMF panel, Dieseltank, silencer etc, including supply & installation of exhaust piping etc.				
4	LIFT D/B's	No.	2		
	Supply and installation of Wall mounting type D/B for lifts having 63A TPN MCB as incomer & 1 nos. 63A TPN MCB and 2 nos 32 A DP MCB as outgoing. incoming shall have 3 nos. indicating lamps.				
5	PUMP D/B's	No.	1		
	Supply and installation of 100A 4P isolator and 125 A Bus bar 3 nos. indicating lamps.				
6					
	FLD/B's - Supply and installation of Wall mounting type TPN MCB D/B having 63A TPN MCB as incomer and 18 nos. 10A SP MCB as outgoing. (Only MCB's)	No.	6		
7	FPDB's - Supply and installation of Wall mounting type 4 way TPN MCB D/B having 63A TPN MCB as incomer and 12 nos. 25A SPN MCB as outgoing .(Only MCB's)	No.	6		
8	Power Cables				
	Supply & laying of 1100V grade PVC insulated, PVC sheathed armoured / unarmoured cable with cable clamps, cable tie etc as required and as follows:				
a	1.1 KV grade 4C x 70 sq. mm PVCA Al. cable	RMT	150		
b	1.1 KV grade 4C x 35 sq. mm PVCA Al. cable	RMT	80		
c	1.1 KV grade 4C x 16 sq. mm PVCA Al. cable	RMT	510		
d	1.1 KV grade 4C x 6 sq. mm PVC unarmoured COPPER cable	RMT	185		
e	1.1 KV grade 4C x 4 sq. mm PVC unarmoured COPPER. cable	RMT	160		
9	TERMINATION OF CABLES with Gland and Sockets:				
a	1.1 KV grade 4C x 70 sq. mm PVCA Al. cable	Sets.	15		
b	1.1 KV grade 4C x 35 sq. mm PVCA Al. cable	Sets.	4		
c	1.1 KV grade 4C x 16 sq. mm PVCA Al. cable	Sets.	24		
d	1.1 KV grade 4C x 6 sq. mm PVC COPPER. cable	Sets.	24		
e	1.1 KV grade 4C x 4 sq. mm PVC COPPER. cable	Sets.	24		
10	Cable trays: -				
	i) Supply & fixing of G.I.perforated type cable tray with cover made from 14G . sheet with 50 mm ht. fixed in vertical wall and 250 mm W. compete with couplers and necessary hardwares and necessary horizontal & vertical bends if necessary including Anex building. (Annex building materials provided by us)	Lot	1		
	ii) Supply & fixing of GI perforated type of cable tray of 100 mm width of 14G sheet	Lot	1		
	Cable tray supports: - Supply, fixing cable tray supports for mounting horizontal & vertical runs of cable trays	Lot	1		
11	Earthing				
	G.I PIPE EARTHING:- Supply and installation of earthing station with 50 mm dia galvanized iron pipe 3.64 mm thick x 3 metres long, 13 mm dia 100 mm long G.I. Double nuts & washers, driven to an average depth of 3.15 mtrs. below the ground level and restoring the surface duly rammed. Construction of inspection pit for earthing station with 250 mm thick brick work over 100 mm thick PCC including all inside and outside plastered, inside and top neat cemented, heavy duty manhole with cover complete with supply of all materials (Cement sand mortar 1.6 and PCC with cement, stone & sand 1:3:6)	No.	26		

	Test terminals for individual earth station/earth circuits made of 25 x 6 mm GI flat on porcelain insulators	No.	26		
	25 x 3 mm GI flat earth bar for connection of different type of equipments to earth grid and interconnection of lightning arrestors & two nos. droppers from roof to earth stations.	RMT	50		
	25 x 5 mm G.I. Flat for connection transformer neutral & body of H.T. & L.T. equipments	RMT	100		
	2 nos. 10SWG Cu Earthing wire for lift and Floor DB's	RMT	200		
12	INTERNAL AND EXTERNAL WIRING				
A	Lift Shaft Wiring :				
	Supply & fixing of wiring in 1.1 KV grade 2- single core 1.5 sq. mm (Cu) and 1- single core 1 sq. mm PVC insulated unsheathed stranded copper wire in 19 mm dia PVC conduit . Plug socket and 6 nos. lift well light points to be group controlled by a 16 Amp. switch including supplying of 16 Amp. switch, 16 Amp. 3-pin switch socket, brass batten holder on M.S. box, 19 mm dia PVC.conduit and accessories etc. including light brackets etc.	Lot	2		
B	AREA LIGHTING				
	Supply and installation of 8way SPN DB with MCB's				
	a) Light point wiring, each controlled by one switch/ SP MCB (maxm. Lg of point - 5 mt.) b) light point wiring of group of light points controlled by one switch / SP MCB (maxm. Lg of points - 5 nos) c) Supply and Installation of outdoor type JB for connecting 4C16 AYFY cable to light (25 to 30 points)	Lot	1		
C	GROUND FLOOR WIRING (Both main building and partial annex building)				
	a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.) b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt) c) Secondary (adjacent/subsequent) light point wiring of group of light points (maxm. Lg of point - 5 mt) d) Exhaust fan point, each controlled by one switch. e) Ceiling fan points each controlled by one switch with mounting of modular type electronic fan regulator. f) . 5/15 Amp power pin combination socket outlet and switch point mounted on switch board itself. g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box h) Modular type Switch board, Cover plates, Switches,sockets, Fan regulator etc as per Requirements and as per conceal work i) sub main wiring from SLDB to switch board with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through existing PVC conduit concealed in wall including repair of damage civil work if required j) Point wiring from switch board to different light, Fan, 5A sockets & Exhaust Fan with 2nos x1.5 Sqmm & 1no. X 1 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required k) Power point wiring from SPDB/JB's to Power sockets with 2nos x2.5 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if Required l) AC point wiring from SPDB to Power socket with 2nos x4 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required	Lot	1		
D	1ST FLOOR WIRING				
	a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.) b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt) c) Secondary (adjacent/subsequent) light point wiring of group of light points (maxm. Lg of point - 5 mt) d) Exhaust fan point, each controlled by one switch. e) Ceiling fan points each controlled by one switch with mounting of modular type electronic fan regulator.	Lot	1		

	<p>g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box</p> <p>h) Modular type Switch board, Cover plates, Switchs,sockets, Fan regulator etc as per Requirements and as per conceal work</p> <p>i) sub main wiring from SLDB to switch board with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through existing PVC conduit conceled in wall including repeer of damage civil work if required</p> <p>j) Point wiring from switch board to different light, Fan, 5A sockets & Exhaust Fan with 2nos x1.5 Sqmm & 1no. X 1 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit conceled in wall including repeer of damage civil work if required</p> <p>k) Power point wiring from SPDB/JB's to Power sockets with 2nos x2.5 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit conceled in wall including repeer of damage civil work if Required</p> <p>l) AC point wiring from SPDB to Power socker with 2nos x6 Sqmm & 1 X 2.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit conceled in wall including repeer of damage civil work if required</p>				
E	2ND FLOOR				
	<p>a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.)</p> <p>b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt)</p> <p>c) Secondary (adjacent/subsequent) light point wiring of group of light points</p> <p>d) Exhaust fan point, each controlled by one switch.</p> <p>e) Ceiling fan points each controlled by one switch with mounting of modular type electronic fan regulator.</p> <p>f) . 5/15 Amp power pin combination socket outlet and switch point mounted on switch board itself.</p> <p>g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box</p> <p>h) Modular type Switch board, Cover plates, Switchs,sockets, Fan regulator etc as per Requirements and as per conceal work</p> <p>i) sub main wiring from SLDB to switch board with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through existing PVC conduit conceled in wall including repeer of damage civil work if required</p> <p>j) Point wiring from switch board to different light, Fan, 5A sockets & Exhaust Fan with 2nos x1.5 Sqmm & 1no. X 1 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit conceled in wall including repeer of damage civil work if required</p> <p>k) Power point wiring from SPDB/JB's to Power sockets with 2nos x2.5 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit conceled in wall including repeer of damage civil work if Required</p> <p>l) AC point wiring from SPDB to Power socker with 2nos x6 Sqmm & 1 X 2.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit conceled in wall including repeer of damage civil work if required</p>	Lot	1		
F	3RD FLOOR				
	<p>a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.)</p> <p>b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt)</p> <p>c) Secondary (adjacent/subsequent) light point wiring of group of light points (maxm. Lg of point - 5 mt)</p> <p>d) Exhaust fan point, each controlled by one switch.</p> <p>e) Ceiling fan points each controlled by one switch with mounting of modular type electronic fan regulator.</p> <p>f) . 5/15 Amp power pin combination socket outlet and switch point mounted on switch board itself.</p> <p>g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box</p> <p>h) Modular type Switch board, Cover plates, Switchs,sockets, Fan regulator etc as per Requirements and as per conceal work</p> <p>i) sub main wiring from SLDB to switch board with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through existing PVC conduit conceled in wall including repeer of damage civil work if required</p>	Lot	1		

	<p>j) Point wiring from switch board to different light, Fan, 5A sockets & Exhaust Fan with 2nos x1.5 Sqmm & 1no. X 1 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required</p> <p>k) Power point wiring from SPDB/JB's to Power sockets with 2nos x2.5 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if Required</p> <p>l) AC point wiring from SPDB to Power socket with 2nos x4 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required</p>				
G	3RD FLOOR Auditorium				
	<p>a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.)</p> <p>b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt)</p> <p>c) Secondary (adjacent/subsequent) light point wiring of group of light points (maxm. Lg of point - 5 mt)</p> <p>d) Exhaust fan point, each controlled by one switch.</p> <p>e) Ceiling fan points each controlled by one switch with mounting of modular type electronic fan regulator.</p> <p>f) . 5/15 Amp power pin combination socket outlet and switch point mounted on switch board itself.</p> <p>g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box</p> <p>h) Modular type Switch board, Cover plates, Switches, sockets, Fan regulator etc as per Requirements and as per conceal work</p> <p>i) sub main wiring from SLDB to switch board with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through existing PVC conduit concealed in wall including repair of damage civil work if required</p> <p>j) Point wiring from switch board to different light, Fan, 5A sockets & Exhaust Fan with 2nos x1.5 Sqmm & 1no. X 1 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required</p> <p>k) Power point wiring from SPDB/JB's to Power sockets with 2nos x2.5 Sqmm & 1 X 2.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if Required</p> <p>l) AC point wiring from SPDB to Power socket with 2nos x4 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required</p>	Lot	1		
H	4TH FLOOR (Both main building and partial annex building)				
	<p>a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.)</p> <p>b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt)</p> <p>c) Secondary (adjacent/subsequent) light point wiring of group of light points (maxm. Lg of point - 5 mt)</p> <p>d) Exhaust fan point, each controlled by one switch.</p> <p>e) Ceiling fan points each controlled by one switch with mounting of modular type electronic fan regulator.</p> <p>f) . 5/15 Amp power pin combination socket outlet and switch point mounted on switch board itself.</p> <p>g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box</p> <p>h) Modular type Switch board, Cover plates, Switches, sockets, Fan regulator etc as per Requirements and as per conceal work</p> <p>i) sub main wiring from SLDB to switch board with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through existing PVC conduit concealed in wall including repair of damage civil work if required</p> <p>j) Point wiring from switch board to different light, Fan, 5A sockets & Exhaust Fan with 2nos x1.5 Sqmm & 1no. X 1 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required</p> <p>k) Power point wiring from SPDB/ JB's to Power socket with 2nos x2.5 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if Required</p>	Lot	1		

	l) AC point wiring from SPDB to Power socket with 2nos x4 Sqmm & 1 X 1.5 Sqmm. Pvc insulated copper flexible wire through Existing PVC conduit concealed in wall including repair of damage civil work if required				
I	ROOF WIRING (main building and Annex building)				
	a) Light point wiring, each controlled by one switch (maxm. Lg of point - 5 mt.) through 20 mm. dia PVC conduit in wall including repair of damage civil work	Lot	1		
	b) light point wiring of group of light points controlled by one switch (maxm. Lg of points - 5 mt) through 20 mm. dia PVC conduit in wall including repair of damage civil work				
	c) Secondary (adjacent/subsequent) light point wiring of group of light points (maxm. Lg of point - 5 mt) through 20 mm. dia PVC conduit in wall including repair of damage civil work				
	g) 5 Amp. 5 pin combination socket outlet and switch point mounted in separate box through 20 mm. dia PVC conduit in wall including repair of damage civil work				
	h) Switch board / MCB Box with MCB through 20 mm. dia PVC conduit in wall including repair of damage civil work				
	i) sub main wiring from SLDB to switch board/ MCB box with 2nos x2.5 Sqmm & 1 X 1 Sqmm. Pvc insulated copper flexible wire through 25 mm. dia PVC conduit in wall including repair of damage civil work				
	OTHERS EQUIPMENTS:				
13	Supply of 1 mt x 2 mt rubber mat - 1100 V grade	No.	3		
14	Supply and fixing of First aid box	No.	1		
15	Supply and fixing of Shock treatment chart	No.	1		
16	Supply of Gloves	set	1		
17	TELEPHONE WIRING				
i)	Supply & wiring of telephone points with 0.5 mm tinned copper conductor PVC insulated cable of following pair in existing conduits	Lot	1		
c)	2 Pair				
ii)	Supply & fixing of 2 pin telephone outlet modular type in existing conceal box with plate etc				
18	LAN wiring	Lot	1		
	Supply & wiring of LAN points with CAT6 cable in existing conduits				
a)	LAN Point wiring with CAT6 cable (each room 1 points)				
b)	Supplying and fixing of LAN outlet modular board with LAN outlet sockets				
	Total Price				
	GST				
	Sub Total				
In Ward (Rupees)					