

## BOQ-KATKOL BRANCH-ELE

STATE BANK OF INDIA INFRA MANAGEMENT SOLUTION (P) LTD					
BOQ- ELECTRICAL WORKS OF KATKOL BRANCH, RBO-2, AO-7					
SL NO.	DESCRIPTION OF WORK	QTY	UNIT	RATE	Amount
<b>1</b>	<b>FABRICATED PANELS :</b>				
	<b>ENERGY METER CUBICLE :</b>				
	Fabrication, Supply, Installation, testing & Commissioning of energy Meter cubicle made out of 16 SWG CRCA sheet consisting of the following. (to be fixed outside the building). FOR 3-PHASE ENERGY METER- for Branch	0	Set		
	separate chamber for energy meter (with fixing plate, view glass and holes with rubber gromets), CTs, Cutouts & switchgear etc. and consisting of the following.				
	3 Nos.125A <b>Open Type</b> bakelite cutout fuse unit with 80A HRC fuses				
	1 no. 125A 4 pole SFU with 100A HRC fuse (L&T)				
	Complete with all inter connections and <b>powder coated painting</b> .				
<b>2</b>	<b>BUILDING MAIN PANEL :</b>				
	<b>MAINS CHANGE OVER PANEL</b> Supply and installation of <b>63A, 4pole ON</b> Load Change over switch with suitable metallic enclosure with cable entry Box and Powder coated painted with 6nos of 2A SP MCB and LED (R,Y,B) indicators for the identification of EB/ DG Set – ON & neat marking thereof:	1	Set		
	a. Change over switch : <b>63A</b> On-Load COS				
	b. MFM - (c 0.5) to show the EB / DG Consumption and V,A,pf, details (L&T or Schnider)				
	c. SPD - Type-2				
	d. R,Y,B Indicators for EB & DG supply (6nos)				
	e. 1A SP MCB - 6 nos				
	f. CTs 0.5 class for the Metering				
<b>3</b>	<b>MAIN PANEL / DISTRIBUTION BOARDS</b>				
	a. <b>MAIN Panel (VDB)</b> : Supply , Installation, testing and commissioning of Double door <b>6-way TPN</b> MCCB <b>VDB</b> consisting of the following -	1	Set		
	Incomer : 80A, 16kA <b>4P</b> MCCB				
	Outgoings : 63A, TP MCB (C-series) - 0nos				
	(To PDB,ACDB)				
	40A, TP MCB (C-series) - 0nos				
	(To LDB, spare)				
	32A, TP MCB (C-series) - 2nos				
	(to ATMDB,LDB,AC-3p )				
	16A, SP MCB (C-series) - 3nos				
	(AC,units)				
	6A, SP MCB (C-series) - 3nos				
	(to NB,AC units.RP)				
	160A COPPER Bus-bar for 3 phases				
	Complete with all interconnection				

## BOQ-KATKOL BRANCH-ELE

4	<b>ACDB – (VTPN - DB):</b> Supply, Installation, testing and Commissioning of Double door <b>(8+6way) VTPN MCB VDB</b> consisting of the following. Incomer : 63A, 10kA 4P MCB Outgoings : 16A, TP MCB (C-series) - 1nos 3 1 (To 3ph Acs, spare) 10A, TP MCB (C-series) - 2nos 6 2 (To 3ph Acs, spare) 25A, SP MCB (C-series) - 0nos 0 0 (To 1ph-4Tr ACs, spare ) 16A, SP MCB (C-series) - 2nos 2 1 (To 1ph acs-3tr, 2Tr) 10A, SP MCB (C-series) - 6nos 6 2 (To 1ph acs-1Tr, 1.5Tr) 160A COPPER Bus-bar for 3 phases 6 Complete with all inter connections.	0	Set		
5	<b>PDB: Supply, Installation, testing and commissioning of Double door TPN MCB DB (8+4way)</b> consisting of the following. Incomer : 40A, 100mA 4P RCCB + 25A 4P MCB (C-series) Outgoings : 25A, 100mA DP RCCB - 0nos 0 0 (For each phase) 10A, SP MCB (C-series) - 6nos 3 3 (To Raw power, spare) 6A, SP MCB (C-series) - 6nos 9 9 (to RP ckts ) Complete with all inter connections. 4_way DB	1	Set		
6	<b>LDB: Supply, Installation, testing and Commissioning of Double door (8+4way) TPN MCB DB</b> consisting of the following. Incomer : 40A, 30mA 4P RCCB + 32A 4P MCB (B-series) Outgoings : 25A, 30mA DP RCCB - 3nos (As 0 0 Feeder to each phase) 10A, SP MCB (B-series) - 2nos 0 0 (To Lighting SB's) 6A, SP MCB (B-series) - 10nos 9 9 (To Lighting SB's ) Complete with all inter connections. 3_way DB	1	Set		
7	<b>BUS BAR Box –</b> Supply, Installation, testing and Commissioning of single door Bus bar box with following . a. 100A Copper bus bars-25mmX3mm X150mm -4nos with insulators mounted on insulator bushes. \\\ for remote UPS Rooms b. 200A Copper bus bars-25mmX4mm X150mm -4nos with insulators mounted on insulator bushes. \\\ for remote UPS Rooms	0	Set		
8	<b>UPS IN PUT DB</b> Supply and installation of <b>40 A FP MCB / SOLATOR</b> in suitable metallic enclosure for UPS Input.	2	Nos.		
9	<b>UPS OUT PUT DB</b> Supply and installation of <b>40A DP MCB / SOLATOR</b> in suitable metallic enclosure for UPS Input.	2	Nos.		
10	<b>ATM DB :</b> Supply, Installation, testing and commissioning of Double door <b>(8+4way) TPN MCB DB</b> consisting of the following. Incomer : 40A, 100mA 4P RCCB + 25A 4P MCB (C-series) Outgoings : 16A, SP MCB (C-series) - 2nos 1 1 (Single phase AC) 10A, SP MCB (C-series) - 2nos 1 1 (To Raw power, spare) 6A, SP MCB (C-series) - 4nos 2 2 (To Lighting ckts) 24hr digital timer 1NO, 1NC - 2nos 2 4 Complete with all inter connections. _way DB	1	Set		
11	<b>UPS CHANGE OVER PANEL</b> Supply erection testing and commissioning of <b>2 Nos. 32A rotary type</b> change over switch in suitable metal box with <b>4 Nos. LED indicator</b> for input / output identification. UPS Output change over switch board.	1	Set		

## BOQ-KATKOL BRANCH-ELE

12	<b>COMPUTER DB</b> Supply, erection, testing and commissioning of wall mounted type double door dust and vermin proof <b>8-way SPN MCB DB</b> fixed on wall comprising the following: Incomer : 40A, <b>DP</b> MCB (C-series) 2 1 Outgoings : 6A, <b>SP</b> MCB (C-series) - 6nos 4 12 SPN MCB DB - 8 way <b>6_way DB</b>	2	Set		
13	Supply and installation of suitable weather proof enclosure for local control of 3ph/1ph air conditioners.				
a.	Supply and installation of 20/32A FP MCB in suitable weather proof enclosure for local control of 3ph/1ph air conditioners.	1	No.		
b.	Supply and installation of 20/32A DP MCB in suitable weather proof enclosure for local control of 3ph/1ph air conditioners.	0	No.		
14	Supply and installation of DOL starter for PUMP motor with thermal overload protection, for 2hp motor	0	No.		
15	<b>CABLE LAYING AND TERMINATIONS</b> Supply, laying and dressing of the following size of 1.1 KV grade PVC insulated armoured cable with aluminium conductor concealed or clamped on wall / ceiling / trench / cable tray if necessary.				
	i) 4x240 Sq.mm AYFY	0	Mtr.		
	ii) 4x95 Sq.mm AYFY	0	Mtr.		
	iii) 4x70 Sq.mm AYFY	0	Mtr.		
	iv) 4x50 Sq.mm AYFY	55	Mtr.		
	v) 4x25 Sq.mm AYFY	0	Mtr.		
	vi) 4x16 Sq.mm AYFY	30	Mtr.		
	vii) 4x10 Sq.mm AYFY	0	Mtr.		
16	End termination of the following size of cables using <b>flange type cable glands</b> and heavy duty tinned aluminium crimping type cable sockets including gland earthing.				
	i) 4x240 Sq.mm AYFY	0	No.		
	ii) 4x95 Sq.mm AYFY	0	No.		
	iii) 4x70 Sq.mm AYFY	0	Nos.		
	iv) 4x50 Sq.mm AYFY	4	Nos.		
	v) 4x25 Sq.mm AYFY	0	Nos.		
	vi) 4x16 Sq.mm AYFY	2	Nos.		
	vii) 4x10 Sq.mm AYFY	0	No.		
17	<b>GI - CABLE TRAY:</b> Supply and installation of medium duty Ladder type cable tray of following size.				
	i) 500mmx50mm(WxH)	15	Mtr.		
	ii) 650mmx50mm(WxH)	0	Mtr.		
18	<b>EARTHING AND LIGHTING PROTECTION</b>				
a.	Supply and providing ISI pipe earthing as per IS 3043 with 2.5m long 40mm dia B class G.I. pipe providing GI clamp at the top of the GI pipe test joint, filling around the GI pipe at the radius of 15cm with homogeneous mixture of charcoal, common salt and river sand up to height of 2.5m from the bottom and the rest of the portion with excavated soil, providing brick work masonries, plastering, fixing cast iron cover of 30x30cm size etc. complete.	2	No.		
b.	Making of Copper plate(600mmx600mmx3mm) Earth-pit as per IS 3043 complete with charcoal, funnel set etc., including making of 450 x 450mm brick masonry chamber with CI / stone / fabricated / RCC cover with lifting handles stone / fabricated / RCC cover with lighting handles etc., complete as required.	2	Nos		
c.	<b>EARTH CONDUCTORS</b> Supply and laying of the following size of bare copper conductor along with above cables, for interconnections between panels, DBs, change over switches etc.and also for interconnections between earth pits.				
	i) No.10 SWG	25	Mtr.		
d.	Supply and laying of 2 X No. 10 SWG copper conductor through 20mm PVC conduit for UPS earthing.	15	Mtr.		
e.	Supply and laying of 1run No.10 SWG copper conductor/ 10sqmm PVC insulated (FRLS type) flexible copper wire - through 20mm PVC conduit for D'kraft RACK's lightning protection.	15	Mtr.		
f.	Supply and laying of 25x3mm GI strip/tape supported on porcelain insulator on every 1m distance for lightning arrester system – the strip shall be insulated from having any direct contact from the building -shall use UPVC conduits while crossing the wall etc.	0	Mtr.		

## BOQ-KATKOL BRANCH-ELE

g.	Supply and installation of - Copper Lightning arrestor spike – of 1m supported over proper insulator and connected to GL strip using proper nut bolt system.	0	Nos		
h.	Supply & installation of 4m length 40mm dia C-class GI pipe to be fixed over the terrace of the building to erect Copper lightning arrester spike. The pole shall be mounted on insulators.	0	Nos		
i.	Supply and providing <b>tinned</b> copper earth bench using 25 x 3 mm copper strip (25 Cm in length)	2	Nos.		
j.	RUBBER mats of 1.1kV grade 1.8mx.9m	2	Nos.		
19	<b>WIRING FOR LIGHT, FAN, PLUG, SOCKETS ETC</b>				
	<b>Point Wiring:</b> Supply and wiring for light /fan/exhaust fan/calling bell/mirror lamp/ bulkhead light/ wall fans etc . With 3plate ceiling rose and by using <b>3x1.5 sqmm.</b> (1.5sqmm) . PVC insulated copper conductor wire in 20mm dia 1.5mm thick rigid PVC conduit , controlled by 5A modular switches with provision for modular type Ceiling fan regulator on separately fabricated MS Box. The M.S box should be earthed properly. One way point.				
a.	Single light point controlled by a 6 Amp switch.	20	No.		
b.	Two light points controlled by a 6 Amp Switch	16	No.		
c.	secondary light point connected to the two light points controlled by a switch.	18	No.		
d.	2-WAY controlled lighting point for staircase, bed switch etc.	0	No.		
e.	Wall fan / Exhaust fan point - 6A, 3 pin modular socket on suitable metal box for wall fan controlled by switch in common SB.	6	Nos.		
f.	Ceiling fan point - controlled by 6A switch in common SB with modular stepped regulator.	3	Nos.		
20	Supply and fixing of Modular type <b>5A</b> 3pin plug points controlled by <b>5A</b> modular switch mounted on suitable box (on common switch board)	4	No.		
21	Supply and fixing of Modular type 5A 3 pin plug points with 5A modular type switch in separate location.	3	No.		
22	Same as above but for 2 Nos. modular type <b>5 A 3 pin plug</b> points with <b>2 nos. 5A</b> modular type switch in separate location. (both sides of cash cabin desk, nodes etc) - <b>Raw power SB</b>	9	No.		
23	Supply and fixing of modular type <b>15A plug socket with 15A modular type switch</b> mounted on suitable Box. (for Mgr cabin, Cash Cabin, Pantry, Water cooler, etc ) .	2	Nos.		
24	Supply and installation of combined 5A modular plug socket with 5A modular switch & 15A combined modular plug socket with 15A modular switch in single box.(for EB supply at cashier counters / Manager cabin/UPS for ATM)	3	Nos.		
25	Supply and providing 16 A plug top and 1.5m long 3 core 2.5Sqmm flexible copper cable (FRLS Type) for taking incoming supply from 16A socket. (For UPS/EB supply to back office manager & EB supply to strong room, line printer and record/ stationary rooms)	3	No.		
26	<b>CIRCUIT WIRING:</b> Supply and wiring wall / floor etc. / recessed / surface as per colour code with <b>3 runs</b> of 1.1KV grade <b>1.5 Sqmm</b> PVC insulated flexible copper wire for phase neutral and earth conductor with standard colour coding, through ISI marked 20mm dia rigid PVC conduit with all accessories. The rate includes the cost of complete wiring from switch box to switch box. THE WIRING SHALL BE DONE CONSEALED .	30	Mtr.		
27	Same as above but with <b>3 x 2.5 Sq.mm</b> PVC Insulated copper wire(FRLS Type). (for lighting main circuit, 15A plug points & UPS point wiring )	580	Mtr.		
28	Same as above but with <b>3 X 4sqmm.</b> PVC insulated copper wire(FRLS Type). (for <b>1.5 / 2 T</b> AC and UPS Out put COS to computer DB and for the Name Boards if there are multiple name boards or extra ordinary lengthy– <b>Name Boards</b> )	25	Mtr		
29	Same as above but with 4 x 2.5 Sq.mm with 2 x 1.5 sq.mm (for3ph <b>3T inverter</b> AC units)	20	Mtr		
30	Same as above but with 4 x 4Sq.mm with 2 x 2.5 sq.mm (for3ph <b>4T inverter</b> AC units)	0	Mtr		
31	Same as above but with 4 x 6 Sq.mm with 1 x 4 sq.mm (for3ph UPS input)	25	Mtr		
32	Same as above but with <b>3 x 6</b> Sq.mm PVC Insulated copper wire through rigid conduit (32mm) on wall and flexible conduit on floor for UPS Input.(4m length x 2 UPS) , AC input 3Tr/ 4Tr inv AC	25	Mtr		
33	Same as above but with 4 x <b>10</b> Sq.mm + 1 x 6 sqmmPVC Insulated copper wire through rigid conduit on wall of 2x32mm dia	10	Mtr		
34	Supply and Installation of <b>25A</b> Modular type 3 pin plug socket with suitable metallic box for air curtain/ air conditioners.	4	No.		
35	Supply and Installation of <b>32A</b> Modular type DP switch having indicator with suitable metallic box for the local control of the air conditioners/air Curtain.	4	No.		

## BOQ-KATKOL BRANCH-ELE

36	<b>UPS POWER STATIONS:</b>				
	<b>UPS Power Stations:::</b> Supply install Test and commissioning of computer power stations with <b>3nos 5A modular type sockets</b> with <b>1nos 15A</b> modular type sockets controlled with( 1nos. <b>15A</b> modular type single pole switch with indicator mounted on M/S Box.) / controlled by master switch ( item 39) The boxes should be Fixed on – wall/ partitions(wooden, concealed or open as required at site. <b>Maximum 3 sets per Circuit</b>	16	No.		
37	Same as above but for 2 Nos. modular type 15 A 3 pin plug points with 2 nos. 15A modular type switch in separate location.(for Data Kraft rack / I/O Rack/ Cash cabin)	2	No.		
38	Same as above but for 2 Nos. modular type 6 A 3 pin plug points with 2 nos. 6A modular type switch with indicator in separate location.(for counters, Head cashier , etc on wall panel/ partition - Above the table and <b>on wall for token machine, CCTV, TV etc</b> )	4	No.		
39	Supply, install, test and commissioning of 16A modular type master switch with indicator with suitable PVC box for the main control of UPS stations in the counters.( <b>common switch to control all UPS station in each counter</b> )	7	No.		
40	Supply & Installation of USB charger outlets controlled by 6A switch (in Privillage lounge/ Hall)	0	Nos.		
41	<b>PVC CONDUITS:</b> Supply and Fixing of following sizes of FRLS PVC conduit along with the accessories in surface in ceiling/ recess in walls, flooring including cutting the wall / floor etc., and making good the same in case of recessed conduit as required.				
	a. 32mm dia. Conduit (Medium)	18	Mtr.		
	b. 25mm dia. Conduit (Medium)	21	Mtr.		
	c. 20mm dia. Conduit (Medium)	15	Mtr.		
42	Marking of Panels, DBs, its switch and fuse ratings, cable size, location etc (Neat identification from top to extreme load end of both light and power distribution including EB / UPS plug sockets and generator switch boards) using white / black paint and stencil. (free hand writing not allowed). Good quality stickers may also be used.	1	LS		
43	Charges for Preparation of SLD (Single Line Diagram) of the whole electrical installations using AutoCAD, Lamination and displaying it inside the UPS room. (Size – A3 /A2/A1).	1	LS		
44	Service charges for liaison work with EB authorities on behalf of bank for getting sanction for additional load, getting order for statutory payments, shifting/replacements of suitable. Energy meter meter if necessary, submission of completion report, obtaining final load sanction from concerned EB and displaying it in the UPS room after lamination. Etc.	1	LS		
45	Arranging temporary wiring for counters and cabins during renovation work	0	L.S		
46	Removing old and unwanted wirngs from the premises, and disposing the same.	0	L.S		
47	<b>LIGHT FIXTURES &amp; FANS</b>				
a.	Supply and Installation of <b>36~40W</b> 600mmx600mm Square recess mounting (gypsum board ceiling) <b>LED type square luminaire</b> (including required fixing frame, chain for suspending from RCC ceiling ) -Wipro, HPL, Havells, Orcus, <b>595mmx595mm cut out</b>	10	No.		
b.	Supply & installation of <b>20 ~18 Watts DLED type LED light fitting</b> with lamps and white reflector on false ceiling ( UPS Light points) - <b>~ 205mm cut out</b>	15	Nos		
c.	Supply & installation of 1 X 9 Watts <b>DLED type LED light fitting</b> with lamps and white reflector on false ceiling - <b>~135mm cut out</b>	14	Nos		
d.	Supply and Installation of <b>Strip LED</b> lights in false ceiling coves of Blue & warm White shades of base rate Rs.100/m	9	Mtr		
e.	Supply and fixing of 2W LED spot lamp round with metal body. warm light for counters	8	Nos		
f.	Supply and fixing of 1 X 20W LED 4' tube set on wall /ceiling. <b>Slim</b>	14	Nos		
g.	Supply and Installation of <b>36~40W</b> 2'x2' Square surface mounting <b>LED type square luminaire</b> (including required fixing frame, chain for suspending from RCC ceiling ) -Wipro, HPL, Havells, Orcus, CGL 600 <b>mmx600mm</b>	1	No.		
h.	Supply and Installation of <b>36~40W</b> out door type street light fixture <b>LED</b> including required fixing frame/pipe, ) -Wipro, HPL, Havells, Orcus	0	No.		
i.	Supply and Installation of <b>20W</b> out door type street light fixture <b>LED</b> including required fixing frame/pipe, ) -Wipro, HPL, Havells, Orcus,CGL	0	No.		

**BOQ-KATKOL BRANCH-ELE**

j.	Supply & installation of calling bell	1	Nos		
k.	Supply and installation of 9" size medium duty exhaust fan. (Toilets/ dinning) Crompton Greaves	2	Nos.		
l.	Supply and installation of 12" size medium duty exhaust fan. (UPS Room) Crompton Greaves	2	No.		
m.	Supply and Installation of 400 mm sweep wall fan. Crompton Greaves	4	No.		
n.	Supply and installation of 1200mm sweep ceiling fan. (Crompton Greaves High Speed)	3	No.		
o.	Supply and Installation of step type modular electronic regulator.	3	No.		
p.	Supply and providing fan rod with painting (upto 1m length) (other than that supplied with fan and if required)	3	Nos.		
q.	Supply and providing fan hook on ceiling.	3	No.		
r.	Supply and installation of 9W LED bulb with suitable batten holder (Toilets & UPS light points)	3	Nos.		
<b>PART - A TOTAL AMOUNT IN FIGURES</b>					
<b>PART - A TOTAL AMOUNT IN WORDS</b>					
<b>PART - B</b>					
<b>TELEPHONE</b>					
1	Supply and wiring using 2 pair telephone cable (0.5mm <sup>2</sup> ) in 20mm PVC conduit from the EPABX to the individual points. One separate cable for each point. Number of cables in one conduit limited to 5.				
	2 pair telephone cabling		100	m	
	5 pair telephone cable		20	m	
2	Supply and fixing of RJ 11 type modular telephone socket on suitable PVC / metal boxes.				
	Telephone socket - single (modular type)		4	No.	
	Telephone socket - double (modular type)		2	No.	
3	Supply and installation of KRONE connector telephone junction box of 20 pair (double door type).		1	No.	
4	Supply and installation of KRONE connector telephone junction box of 10 pair.		1	No.	
<b>PART - B TOTAL AMOUNT IN FIGURES</b>					
<b>PART - B TOTAL AMOUNT IN WORDS</b>					
<b>PART - C</b>					
<b>PA &amp; MUSIC SYSTEM</b>					
1	Supply and wiring as per colour code transparent speaker cable 2.50sqmm PVC insulated stranded copper wire 2 runs through ISI grade 20mm conduit for speakers		0	m	
2	Supply and providing 9W recessed type speakers on ceiling <b>CS 663 T Ahuja</b> make speaker.		0	No.	
<b>PART - C TOTAL AMOUNT IN FIGURES</b>					
<b>PART - C TOTAL AMOUNT IN WORDS</b>					
<b>PART - D</b>					
<b>DATA CABLING</b>					
1	Supply and laying of <b>CAT 6</b> UTP cable through 25mm dia rigid PVC conduit with all accessories etc.(2 run for SBI Connect also )		550	m	
2	Supply and fixing of 2nos of <b>CAT 6 Modular</b> Information outlet with SM box on wall / partitions etc.		12	No.	
3	Supply and installation of 12U wall mounted type rack. <b>(HCL/Valrack make)</b>		1	No.	
4	Supply and Installation of <b>CAT6 24 port</b> patch panel in the floor/wall mounted type rack.		1	No.	
5	Supply and installation of <b>CAT6 26 port (1000Mbps) switch</b> in the wall/floor mounted type rack. <b>Make/Model- Cisco2960/2960x only</b>		0	No.	
6	Supply and installation of 1 m long patch chord. <b>(CAT 6) moulded</b>		24	Nos.	
7	Supply and installation of 2 m long patch chord. <b>(CAT 6) moulded</b>		14	Nos.	
8	Supply and installation of 3 mlong patch chord. <b>(CAT 6) moulded</b>		3	Nos.	
<b>PART - D TOTAL AMOUNT IN FIGURES</b>					
<b>PART - D TOTAL AMOUNT IN WORDS</b>					

BOQ-KATKOL BRANCH-ELE

	PART - A						
	PART - B						
	PART - C						
	PART - D						
	TOTAL				Rs.		