

TENDER DOCUMENTS FOR ELECTRICAL WORKS

STATE BANK OF INDIA

(ELECTRICAL WORKS)

ADB HARDOI BRANCH

RBO-VI, KANPUR

Tender ID: **LUC201903016**

PRICE BID- VOLUME - II

Tender Issued to: _____

Tender Received on: _____

Issued by,

**VICE PRESIDENT
CIRCLE OFFICE LUCKNOW
SBIIMS
C/o STATE BANK OF INDIA.
LOCAL HEAD OFFICE
LUCKNOW**

BILL OF QUANTITY: ADB HARDOI BRANCH, RBO-VI, A.O. KANPUR

S.N.	Description	Qty.	Rates	Quoted Amount
SECTION- I				
1	Supply & installation on angle iron frame of 04 ways TPN DB with double door in UPS room at suitable Ht. comprising with SPMCB 63 Amp 04No, <u>Outlet</u> . And with <u>100A/80A 3pole MCB as incoming</u> . All MCB To be of C series suitable for motor/inductive load, with blanking plates for blank slots. Complete connection testing etc. in all Respect on wall. (for UPS room).	01No.		
2	Providing & installation on angle iron frame of 2+8 way SPN distribution board with cover/door (ms) comprising of one 20/25Amp incoming DPMCB and, five 10Amp out going SPMCB All MCB's to be of C series Suitable for motor/inductive load, Complete Connection testing etc in all respect.(02 for branch).	02 No.		
3	Providing & installation on angle iron frame of 2+8 way SPN distribution board with cover/door(plastic or ms) comprising of one 40A in coming ELCB/RCCB 300MA & eight, 10A-25A out going SPMCB All MCB's to be of C/G series Suitable for motor/inductive load, Complete Connection testing etc in all respect.(FOR light ckt). (if RCBO is not available, ELCB to be provided)	02No.		
4	Supply & laying connection testing etc with 1100 V aluminum conductor PVC insulated PVC sheathed armored cable on surface (as required) including MS saddle screws two runs of 8 swg GI wire along with cable of following size : a) 3 1/2 x 50 MM ² b) 3 1/2 x 35 MM ² c) 3 1/2 x 25 MM ² ** Vender to take actual measurements for each cable.	25 mtr 40 mtr 35mtr		
5	End termination of cable of following size using dowells makes copper cable lugs /cable sockets of as required a) 3 1/2 x 50 MM ² b) 3 1/2 x 35 MM ²	12 set 09 Sets		
6	Providing & Installation on angle iron frame of manufactures sheet steel 20A socket board with cover and 2 pole & earth metal plug and socket and 25/32 Amp SPMCB complete in all respect for air conditioners.	07 Nos		

7	<p>Providing & installation on angle iron frame of suitable MS MCB/DB enclosure i.e. 4 way SPNDB (Consumer unit) complete in all respect including earthing link etc comprising of C series MCBs.</p> <p>i) <u>One</u> 20/25 Amp ELCB/RCCB 300MA for UPS output in UPS room, for system room and B'Hall each circuits complete testing in all respect.</p> <p>ii) S/F <u>One 25/40AMP RCCB</u>, 100MA, in a suitable ms box to be connected <u>before the AC stabilizer</u>, complete testing fixing/installation complete in all respect. (SYSTEM room, BM cabin and others).</p>	03Sets 07 Set.		
8	Wiring for air conditioners with 2 wires of size 6mm ² for Phase & neutral and one wire of 4MM ² for earth in 25 mm in PVC conduit, wire to be of 1100 V grade insulated with copper conductor concealed on wall. Complete commissioning etc.	140Mtr		
9	Wiring form UPS O/P DP's /COS to SPNDB / TPNDB / fitted in HALL /UPS room for b'hall with 2 wires of size 6 mm ² for Phase, neutral and one wire of 4 mm ² for earth in 20 mm PVC conduit, wire to be of 1100 V grade PVC insulated with copper conductor, on wall. Complete with ms saddle / fixing / testing / commissioning. etc. (UPS & LIGHT CKT)	180Mtr		
10	Wiring form TPNDB to isolation transformer / Stabilizer and to UPS I/P (and earthing as provided) with 02 PVC copper wires of size point 10 mm ² for Phase & neutral in 20 mm PVC conduit, wire to be of 1100 V grade insulated with copper conductor. complete with ms saddle/fixing/connection testing commissioning etc. (separate <u>medium circuit</u>)	3ckt		
11	<p>Supply and fixing of <u>04 Nos 10 Amp</u> Switch and 4 Nos. modular type Per point 16/6 Amp socket 5pin on suitable <u>modular</u> plate and manufacturers steel box including circuit wiring from SPNDB to computer socket board With 2.5sqmm pvc copper wire with 1100v grade flexible / stranded wires for Phase neutral and earth in PVC conduit on surface and floor concealed up to computer socket boards complete with MS saddle, fixing, connection, testing /commissioning in all respect for <u>system / prn</u> room on counters, tables, wall, as required by the branch. <u>(One power board with 4 socket /switches & required wiring will be treated one point)</u> Colour coding /ferule marking may be taken care.</p> <p>NOTE (i) <u>One circuit</u> to be connected with maximum <u>03 powers Board</u>. Server and line printer point to be connected with separate ckt each with one power board. To avoid use of more number of PVC pipe 32/25/20 mm pvc pipe may be used i.e. as per IS. For <u>different SPNDBs</u> <u>separate circuit and pvc conduit to be used.</u></p>	09 Nos		

11a	As above with socket 6A/16A complete with all respect for system room router.	02Nos		
12	Wiring from Energy meter to Kitkat fuse neutral link and or Item No 1 TPN switch fuse unit i.e if provided with 1100V grade PVC insulated 4 Nos. 16 MM ² copper wire in PVC conduit/ flexible pipe. complete testing/commissioning etc.	04Mtr		
13	Providing and fixing of RYB Phase indicator lamps in system room including a suitable box connection /testing etc.	01No.		
14	<u>EARTHING</u> : Supply, installation, testing and commissioning of earth station conforming to IS 3043 with 600x600x3mm copper plate earth electrode, 2X8swg bare copper wire in 15mm dia B Class GI pipe earth lead up to earth pit chamber watering arrangement with 20mm dia B class GI pipe with funnel, top of plate at least 3 meters below ground level, at least 150mm alternate all around, salt/charcoal covering of electrode, 300mmx 300mm x 300mm masonry chamber with suitable frame with hinged, lockable, heavy duty CI cover including digging and filling of pit, complete in all respects.	02Nos		
14a	Supply, installation, testing and commissioning of earth station conforming to IS 3043 with 4.5 metres long, 40 mm dia, B class perforated GI pipe earth electrode, at least 150mm alternate all around, salt/charcoal covering of electrode, 300mmx 300mm x 300mm masonry chamber with suitable frame with hinged, lockable, heavy duty CI cover including digging and filling of pit, complete in all respects.	02Nos		
14b	Providing & installation of 1x10SQMM PVC insulated copper wire in 20mm PVC pipe up to inside from earth station.(sl) in side of UPS room complete in all respect including fixing with nut and bolts (concealed on wall/floor).	20 mtr		
14c	As per SI No.12 with 25X3MM GI STRIP concealed on wall/floor up to 1st point complete in all respect.	20mtr		
15	Supply & fixing, light, Fan & sw, socket point in System/UPS room/Printer room at suitable place as required by the branch, <u>(04 point from UPS SPNDB /DPMCB for System /UPS room complete testing, commissioning in all respect with 1.5 sqmm pvc 1100v grade copper insulated wire for phase, Neutral and earth (if required)in pvc conduit (concealed on wall/floor and making the same). Item include non modular switch socket, board, front plate etc. One sw should be near grill gate entrance.</u>	05point		

16	As above sl.15 with ms switch board of Modular type, wooden finish cover front cover, 10A switch 6A multi socket <i>modular type</i> with screw / washer etc. Wiring to commence <u>from UPS TPNDDB light MCB/Fuse unit to switch board and then To points</u> complete in all respect as per branch requirement.** <u>02switch and 02 socket on each counter (i.e. 02 switch & sockets will be Treated one point).</u> One ckt may be Given up to 04 switch and socket i.e. 02.Switch boards.	10Nos.		
17	Supply and fixing MS danger notice board.	02Nos		
18	Supply & installation on angle iron frame of 4way TPN distribution board double door comprising <u>with 09Nos 6-32A SPMCBs</u> , as outgoing and incomer 63A 4P ELCB 300MA. All MCB to be of C series, with blanking plates for blank slots. Complete connection testing etc. in all respect. (01 for light IN B'HALL, System room & BM cabin ACs. (To be fitted in UPS room).	01 Nos.		
19	Wiring for two indication lamps from UPS output DP/DB critical/non critical circuits in 02 separate pvc conduit with lamp, holder in a suitable box with connections/testing etc complete in all respect in UPS room.	01Nos.		
20	Point wiring with 3 X 1.5sqmm pvc copper wire in PVC conduit for light/fan/socket on boards. Wiring to be <u>including circuit wiring from TPNDDB/SPNBDs to switch boards</u> in PVC conduits & from switch boards and their after to the points including provision of <u>3 PHASE ceiling rose</u> and junction box as required of light/fan points would be either individual in group up to a max of 2 points. Item include supply & Installation Of <u>non modular ms board, switches, sockets, LED holder, type</u> for light fan LED, wall fan point etc. Enough loose wire to be left at point end/ceiling rose for connection to fixture etc which to be installed in arm strong false ceiling. Color coding and ferule marking must be taken care.	55 Nos.		
21	Supply, installation, testing and Commissioning of power point with 4sqmm cu wire for phase and neutral and 2.5sqmm cu wire for earth <u>in PVC conduit</u> including all accessories boxes as required, Maximum Point on one circuit should not exceed <u>Two</u> . for water cooler, glow sine, TV, Hooter, music system, pantry, flood light pt. (<u>Cash, locker record & stationary room to be connected through a lead or 3x1.5sqmm pvc copper wire in a thick pvc pipe to outside with 15Amp socket this will be paid extra</u>) or as required by branch at suitable place) Circuit to be connected from Branch TPNDDB, controlled by each point with each switch testing/commissioning in all respect. Cu wire of vc 1100v grade insulated for phase, neutral and earth, concealed properly. Wiring to	05 Nos		

	commence from branch TPNDB/Fuse unit to switch board and then to connection testing etc in all respect as per branch requirement. In pvc conduit (concealed on wall/floor and making good the same). <u>Item include</u> supply & Installation Of NON modular MS board, 15/20Amp switches, Sockets etc. complete for power board.			
22	kit kat fuse unit(03) 200A and 01No 200AMP copper Neutral link near main, Energy meter & near Generator set on suitable wooden board (porcelain kit-kat fuse unit)with connection etc.	01Nos		
23	Cash, locker, record & stationary room to be connected through a lead or 3x1.5sqmm pvc copper wire in a thick pvc FLEXI pipe to out side with 15Amp socket (in side to be connected directly with proper connection).	03Nos		
24	Supply, installation, testing and Commissioning of MCB 32A change over switch with box between both UPS output power complete connection etc complete in all respect.	01 No.		
25	Supply & installation on angle iron frame of 06 way TPN vertical DB with double door at suitable place & Ht. Comprising with 100A Inlet 03 pole MCB. TPMCB 25 Amp 05 No, 32A, 03_Nos. Outlet. All MCB to be of C series, with blanking plates for blank slots. Complete connection testing etc. in all respect.	01 Nos		
26	Providing & installation of 100 Amp, 415 V, 3 pole with neutral molded case circuit breakers (MCCB) thermal setting fixed 25 KA with sheet Steel enclosure with proper insulating sheet, painting, complete with iron studs/bolt, connection, testing etc. complete in all respect. (01 for B'hall light and 3ACs–syst /BM, 01 for UPS ckt & and ACs (To be fitted Near stair case back side)	02Nos		
27	Providing & installation of 160 Amp, 415 V, 4 pole with neutral molded case circuit breakers (MCCB) thermal setting 25 KA with sheet Steel enclosure with proper insulating sheet, painting, complete with iron studs / bolt, connection, testing etc. complete in all respect. (after fuse grip for mains)	01		
28	Dismantling of old BER item like cable, wire DBs, TPNDBs, all old fan, lights etc. and keeping in the branch live in all respect/proper cable dressing of existing cable if it is retained. Vendor has to keep minimize 02 electrician for the branch till work is completed.	01 Job		
29	From MCCB SWITCH – Providing and installation of busbar chamber made of 16g sheet steel duly painted with One coat of primer and two coat of Synthetic enamel paint with rubber gasket and front cover containing 04 Nos. electrolyte quality copper busbar size (3phase and neutral) of <u>50 x 4 mm(200A)</u> duly supported	01 Nos.		

	in robust manner on porcelain insulator with at least 32 mm clearance between busbar complete with iron frame / bolt etc. complete in all respect testing commissioning etc. to be connected after the COS and output to TPNSW and one 3ph spare circuit point.			
Sub Total A				
27	Supply and installation of 1*20watt Batten type tubular LED light fitting with LEDs, driver, diffuser, and housing complete in all respects in UPS room and record/wc/bath room/ Cove with complete in all respect connection Testing etc with required colour need basis.	12 Nos.		
28	Supply and installation of square LED panel Full Lighting (2'x2')36/40watt with LEDs, driver, diffuser, housing complete in all respects glass /PVC Al/ CRCA coated /steel coated body suitable For Armstrong / pop fitting complete in all respect.	25 Nos.		
29	Supply and installation of wall bracket Oscillating metal body type fan 400 mm with inbuilt regulator in Sys /prn /hall room with connection testing, commissioning at suitable place in B'hall complete in all respect.	10 Nos.		
30	Supply and installation of 11 watt LED blub with testing Commissioning complete in all respect.	03 Nos.		
31	Supply & fixing of exhaust fan heavy duty 300MM swipe and 1400 rpm with lovers and making of hole on wall of proper size with nut, bolts/brackets complete installation testing/commissioning & connection with cement work etc. Complete in all respect in UPS, strong room, locker room & toilets etc.	03Nos.		
32	Supply and installation of 18 watt LED recessed mounted LED Down lighter with testing Commissioning complete in all respect.	20Nos.		
33	Supply of IP 20 protection flexible LED strip (5 meter roll) with suitable driver of minimum total wattage 48 W complete in all respects and of Bank desired colour.	08 Set		
Sub Total B				
TOTAL(A+B)				

APPROVED MAKES /BRAND OF MATERIAL

S.N.	MATERIALS	APPROVED MANUFACTURERS
1	11 KV XLPE Armoured cable	CCI / INCAB /Gloster / Skytone / KEI
2	11 KV Cable Terminated Kit	INCAB / CCI / M-Seal / Denson / Raychem
3	MCCB	ABB / L & T /Siemens/ Schneider/ Legrand
4	LT Panel	Fabricator who has ISO certification or CPR / Test certification for panel

5	MCB and MCB Board	ABB /Siemens/ Schneider/ Legrand/ GE/Hager
6	ELCB, RCBO	ABB /Siemens/ Schneider/ Legrand/ GE/Hager
7	Switch Fuse Unit	HPL/STANDARD/INDOASIAN
8	1.1 KV PVC/XLPE Aluminium / Copper Conductor cable	CCI/INCAB/Gloster/Polycab/Skytone/KEI/ Havells
9	1100 KV PVC / XLPE insulated Copper wire	National /Polycab/Skytone/Finolex/ RRRKabel / KEI.
10	Steel Conduit and accessories	BEC/NIC/AKG
11	Pvc conduits and accessories	BEC/NIC/AKG
12	Voltmeter Ammeter (Analog)	L&T / AE / IMP / Rishabh
13	Voltmeter Ammeter (Digital)	Schneider / L&T / Siemens / ABB
14	Selector Switch	Kaycee / L &T
15	Relays	Schneider / L&T / Siemens / ABB / Minilec/ GE
16	Current Transformer	L&T / Kappa / AE
17	Indication Lamps	L&T/ Siemens
18	Energy meter	L&T/GE POWERS/Schneider/HPL
19	Telephone wire	National /polycab/skytone/delton/finolex
20	Multi function digital meter, TV meter MWH, PF,KVAH,A,V etc Relays	L&T / Alsthom / Schneider / Siemens / ABB

S.N	MATERIALS	APPROVED MANUFACTURERS
21	Power factor Microprocessor controller	BLR CXD (Beluk)
22	Capacitors HPP Heavy duty	ABB/L&T/Neptune/Schneider/Siemens
23	Contactors	ABB/L&T/Siemens/ Schneider
24	PVC Terminal	Elmex /Essen
25	Holder	Anchor/ SSK/Precision
26	GI Pipes	Tata/ITC/QST/Jindal
27	Changeover Switch	ABB/HPL-Socomec/Standard

28	Paint	Jenson & Nicholson/Berger / Asian
29	Push Button	L & T / Siemens /ABB
30	Metal cladssocket	Bch /Crompton/HPL / Standard
31	Cable Lug	Dowells
32	Cable Gland	Comet / Dowells
33	Modular switch socket bard plate cover etc.	Anchor/ Legrand / Philips/ ABB /L & T / ABB
34	Switch / Sockets, Ceiling rose (3 plate) non modular	Anchor/ SSK/ Rider /Precision / CPL
35	KWH meter analog mechanical, electronic	GE / HPL / ABB / Jaipur
36	LED Light fittings	Philips/Crompton/Bajaj/Wipro/ Havells/Syska
37	All type of Fan	Crompton /Bajaj /Usha / Havells

- 1) The contractor should obtain prior approval from Employer /Consultants before placing order for any specific materials. Employer may / delete any of the makes or brands out of the above list.
 - 2). All materials should conform to relevant standards and codes of BIS.
 - 3) Materials with I.S.I. mark shall be used duly approved by the Banks Engineer / Architect.
- Note: - If any material is found to be not up to the mark, the contractor will have to produce original bills/certificate from the manufacturer or his authorised Distributor for authenticity and genuineness of the material for consideration and as per make approved by the Bank. The same will not be considered for payment.