

ADDENDUM TO TENDER - II

BID REFERENCE: CI:SCI:RT/ROG/P-I/2017-18/01 Dt. 12/07/2017

TENDER FOR SUPPLY, INSTALLATION & COMMISSIONING OF LINEAR ACCELERATOR ON TURNKEY BASIS TO DEPARTMENT OF RADIATION ONCOLOGY AT CANCER INSTITUTE (WIA), ADYAR, CHENNAI

B) DESCRIPTION OF WORK: RENNOVATION OF ELECTRICAL WORKS

Add

Sl.	Item Description	Qty	Unit
b	PDB (Bunker & TPS Room)		
	The double door type 6 Way TPN Compartmental Horizontal (7 Segment Phase Segregation) MCB DB comprising of the following :		
	Incoming		
	63A TPN 10kA MCB 'C' Curve with all other required accessories – 1 No.		
	Outgoings		
	63 A DP 30 mA RCCB – 3 Nos. as outgoing with 9 Nos 16A & 3 Nos SP MCB 'C' Curve		
	(Each 63A DP 30 mA RCCB consist of 6 Nos of 10/16/20A 10 KA SP MCB 'C' Curve)		
	With necessary tinned copper busbars, interconnections, separate earth bus, separate neutral bus for each phases. The board shall be powder coated type fixed with concealed system in wall. The rate shall include necessary connected civil works like chipping, rough plastering to match with good original surface etc.	2	Each
c	UPS DB - Bunkar & TPS Room		
	The double door type 4 Way TPN Compartmental Horizontal (7 Segment Phase Segregation) MCB DB comprising of the following :		
	Incoming		
	32 A TPN MCB 'C' Curve – 1 No.		
	Outgoings		

Sl.	Item Description	Qty	Unit
	32 A DP 30 mA RCCB – 3 Nos. as outgoing with 12 Nos 6A SP MCB 'C' Curve		
	(Each 32A DP 30 mA RCCB consist of 4 Nos of 6A 10 KA SP MCB 'C' Curve)		
	With necessary tinned copper busbars, interconnections, separate earth bus, separate neutral bus for each phases. The board shall be powder coated type fixed with concealed system in wall. The rate shall include necessary connected civil works like chipping, rough plastering to match with good original surface etc.	2	Each
1.3	63A 4P MCB & IP 65 Encloser		
	Supply, Installation, Testing and Commissioning 40/63A TPN MCB with water proof enclosure including earthing and all other required accessories as per site conditions. For A/C & Chiller	3	Each
1.4	120 KVA UPS Input & Output Switch		
	Supply, Erection, Testing and Commissioning of 250A 25KA TPN MCCB with cubicle type free standing IP 42 Protection encloser with support clamps and angles frames as required as per the site condition. Incoming and outgoing cables shall be of Top and bottam entry (Optional)	2	Each
II	SECTION-B: WIRING AND CONNECTED ACCESSORIES		
2.1	SUBMAINS UPS & RAW POWER CIRCUITS		
a	Supply & Laying of 2R 2.5sqmm 1R 1.5 PVC insulated multistrand copper wire with 25mm dia PVC conduit with all accessories as required as per site conditions.(lighting circuit mains)	100	Mtr.
b	Supply & Laying of 2R 2.5sqmm 1R 1.5 PVC insulated multistrand copper wire with 25mm dia PVC conduit with all accessories as required as per site conditions.(Raw Power Circuit)	95	Mtr.
c	Supply & Laying of 2R 2.5sqmm 1R 1.5 PVC insulated multistrand copper wire with 25mm dia PVC conduit with all accessories as required as per site conditions.(Ups Circuit)	450	Mtr.
d	Supply & Laying of 2R 4sqmm 1R4sq.mm PVC insulated FRLS multistrand copper wire with 25mm dia FRPVC conduit with all accessories as required as per site conditions.(Split A/C & 16A Power Socket Circuit)	150	Mtr.

Sl.	Item Description	Qty	Unit
e	Supply & Laying of 12R 1.5sq.mm PVC insulated multistrand copper wire with 25mm dia PVC conduit with all accessories as required as per site conditions. (for CCP to Door InterLock and Warning Lamp control wiring)	55	Mtr.
f	Supply & Laying of 12C 1.5sq.mm PVC insulated multistrand copper wire with 25mm dia PVC conduit with all accessories as required as per site conditions. (for CCP to Modulator Interphase wiring)	12	Mtr.
g	Supply & Laying of 2 Run 1.5sqmm PVC insulated multistrand copper wire with 20mm dia PVC conduit with all accessories for Emergency push button wiring.	90	Mtr.
2.2	LIGHT POINT		
	Provide all materials, accessories, labour etc. for wiring with conduit and accessories in recessed system wiring for lights, ceiling fan & exhaust fan point wiring. using 3 Runs of 1.5sqmm PVC insulated multistrand Flexible copper conductor wires (FRLS) of 650/1100V grade drawn through rigid PVC conduit with 2mm wall thickness including supply and laying of conduits and its accessories concealed in the slab / wall, surface mounted / using PVC pull / junction boxes, light outlet boxes, G.I.switch outlet boxes, Modular switch plates, 6A switches in recessed system of G.I / Nickel Cadmium outlet box etc., including testing and commissioning complete wiring system. The rate for point wiring should inclusive of supply and fixing of 6A modular type switch in a suitable size modular box in concealed system, wiring from first switch point and then looping between the points and switches. Connect the all lights, switches sockets with suitable PVC sleeves etc as required in the following manner.		
a	1 Light controlled by 1 switch	20	Pts
b	2 light points controlled by 1 switch (1set = 2 lights)	12	Pts
c	4 light points controlled by 1 switch with 400W Dimmer 1(1set = 4 lights) - for Dimmer	1	Pts
2.3	SOCKETS		

Sl.	Item Description	Qty	Unit
a	Supply, fixing, testing & commissioning of 6A, multipin shuttered socket outlet controlled by one way 6A switch. The rate shall be inclusive of G.I / Nickel Cadmium metal box, modular front plate, switches & socket and necessary fixing accessories. In recessed mounting system with civil works (cutting, chipping, plastering to match the original finish as required. (Consol & Bunker Raw Power)	6	Nos
b	Supply, fixing, testing & commissioning of 6/13A, multistandard shuttered socket outlet controlled by one way 6A switch. The rate shall be inclusive of G.I / Nickel Cadmium metal box, modular front plate, switches & socket and necessary fixing accessories. In recessed mounting system with civil works (cutting, chipping, plastering to match the original finish as required. (Consol & Bunker UPS Power)	30	Nos
c	Supply, fixing, testing & commissioning of 6/16A, multipin shuttered socket outlet controlled by one way 16A switch. The rate shall be inclusive of G.I / Nickel Cadmium metal box, modular front plate, switches & socket and necessary fixing accessories. In recessed mounting system with civil works (cutting, chipping, plastering to match the original finish) as required. (Consol, Bunker & TPS Room UPS & Raw Power)	15	Nos
d	Supply, fixing, testing & commissioning of 1No 25A 3 Pin socket with plug top and controlled by 25A DP 'C' Curve MCB in a suitable size MS enclosure with necessary making interconnection, wiring, earthing, painting etc., and required fixing accessories. (Splite AC Control)	7	Nos
III	SECTION - C : SUPPLY, FIXING, TESTING & COMMISSIONING OF LIGHT FITTINGS		
3.1	Light Fittings		
a	Supply, Erection, Testing and Commissioning of 2' X 2' LED 40 watts recessed mounting fitting with all accessories and interconnecting with 3 R 1.5 sqmm PVC insulated FRLS copper wire Make: Philips, other branded first class companies preferred.	15	Nos
b	Supply, Erection, Testing and Commissioning of LED 18 watts recessed mounting down light fitting with all accessories and interconnecting with 3 R 1.5 sqmm PVC insulated FRLS copper wire Make: Philips, other branded first class companies preferred.	10	Nos

Sl.	Item Description	Qty	Unit
c	Supply, Erection, Testing and Commissioning of single 15W Recessed fixed type LED Dimmer fitting with Electronics ballast and all accessories and interconnecting with 3 core 1.5 sqmm PVC insulated FRLS copper wire and fixing the same in the Ceiling	4	Nos
d	Supply, Erection, Testing and Commisioining of Box type 28W T5 fitting along with 1 nos 28w Compact Fluorescent Lamps and with high frequency electronic ballasts with all accessories.	6	Nos
	SECTION - C :- Total C/o to summary : Rs.		
IV	SECTION - D : SUPPLY, LAYING, FIXING, TESTING & COMMISSIONING LT CABLES AND CABLE TERMINATION		
4.1	L.T.CABLES		
	Supply, Laying, Testing and Commissioning of the following size PVC insulated and PVC sheathed/XLPE Power cable of 1.1KV grade Aluminium/Copper armoured/ unarmoured LT UG cables. The Cables shall be laying in the cable trenches/cable tray/ground/hume pipes/cable duct and partially laid on wall/ceiling indoor/outdoor with suitable clamps & necessary fixing accessories etc. as required.		
a	4C 300 sq.mm Aluminium Ar. Cable for EB Incomming power (Optional)		Mtr.
b	4R 95 sq.mm Copper flexible cable UPS Incoming & Outgoing	16	Mtr.
c	4R 95 sq.mm Copper flexible cable for UPS to Clinac with OBI Costmer Control Board	50	Mtr.
d	4R 35 sq.mm Copper flexible cable for CCP to Modulator	35	Mtr.
e	1C 95 sq.mm Copper flexible cable for additional Netural Earth and Bodi Earth for 60KVA UPS & Machine	100	Mtr.
f	1C 35 sq.mm Copper flexible cable for Bodi Earth for Machine	35	Mtr.
g	4C 16 sq.mm Copper Ar. Cable for Chiller incoming	75	Mtr.
h	4C 10 sq.mm Copper Ar. Cable for PDB & Duct A/C incoming	150	Mtr.
i	4C 6 sq.mm Copper Ar. Cable for LDB & UPS DB incoming	125	Mtr.

Sl.	Item Description	Qty	Unit
4.2	CABLE TERMINATION		
	Supply, Installation and making of LT UG cable end termination of the following size PVC insulated & PVC sheathed /XLPE insulated Copper/Aluminium cable of 1.1KV grade with single compression cable gland and suitable Aluminium/Copper crimping sockets/lugs,including Gland earth clip ,crimppng paste, sleeves, ferrules etc., necessary accessories as required.		
a	4 Core 300 Sqmm XLPE Ins.Ar.Alu. Cable	2	Each
b	4R 95 Sqmm Copper flexible cable	4	Each
c	4R 35 Sqmm Copper flexible cable	2	Each
d	1R 95 Sqmm Copper flexible cable	6	Each
e	1R 35 Sqmm Copper flexible cable	4	Each
f	4 Core 16 Sqmm Copper Ar. cable	2	Each
g	4 Core 10 Sqmm Copper Ar. cable	12	Each
h	4 Core 6 Sqmm Copper Ar. cable	12	Each
	SECTION - D :- Total C/o to summary : Rs.		
V	SECTION-E: EARTHING SYSTEM, CABLE TRAY WORKS		
5.1	Earth stations		
a	Supply, Installation, Testing & Commisioning of 3 mtrs long 100mm dia cast Iron pipe with 600 X 600 X 3mm copper plate Earth electrode for Machine body earth & UPS Netural earth	3	Each
c	Supply and laying of following flats for Earthing 25 x 3 mm GI flat for main panel and other bodi earthing as required.	75	Mtr.
e	Supply and laying of following Earthing No '8' gauge Copper wire for equipment and DB, AC & Chiller earthing.	150	Mtr.
5.2	Earth Links		
	Supply, Fixing of the following size Copper flat earth Station with 2 Nos DMC supporting Insulator clamp with predrilled machine made		
a	300 x 25 x 3mm thick copper earth flat	2	Each
5.3	CABLE TRAY		

Sl.	Item Description	Qty	Unit
a	Supplying, fabricating, erecting and connecting the following 1.6mm thickness GI perforated type cable trays with necessary	25	Mtr.
	SECTION - E:-Total C/o to summary : Rs.		
VI	SECTION-F - SUPPLY, LAYING, FIXING, TESTING & COMMISSIONING OF DATA, VOICE & Network		
6.1	Supply, Laying & fixing of CAT6 unarmoured Data cable from Data Rack Box to floor junction box & each individual Sockets	450	Mtr.
6.2	Supply, Laying & fixing of 2 pair unarmoured telephone cable from 20 Pair Krone connector Box to floor junction box & each	100	Mtr.
6.3	Supply & fixing of type data socket outlet recessed mounted system on a GI / Nickel Cadmium outlet box with UTP CAT6	24	Nos
6.4	Supply & fixing of type Voice socket outlet recessed mounted system on a GI / Nickel Cadmium outlet box with UTP RJ11 IO	6	Nos
6.5	Supply, Fixing, Testing and Commissioning of 6U Communication Rack	1	Nos
6.5	Supply & Fixing of 24port Patch panel and 10/100/1000 mbps Base T Switch with 24 port patch panel	1	Nos
6.6	Supply of 1 mtr Patch card	24	Nos
6.7	Supply & Fixing of 105 X 50 mm CMS Tray for Electrical, Data & Voice cable pulling	25	Mtr.
VII	SECTION - G - SUPPLY AND FIXING OF CCTV, FIRE ALARM, LMO, WARNING LIGHT, EMERGENCY SWITCH & DOOR		
7.1	CC TV		
a	Supply, Fixing, Testing & Commissioning of Weather Proof IR Camera, Sony CCD 1/3" colour camera	1	Nos
b	Supply, Fixing, Testing & Commissioning of PTZ Doom Camera Sony CCD 420TVL, X22 Zoom, 3.9 - 8.5 mm Auto iris lens,	1	Nos
c	Supply, Fixing, Testing & Commissioning of PTZ keyboard with joystick	1	Nos

Sl.	Item Description	Qty	Unit
d	Supply, Fixing, Testing & Commissioning of 24" LED Monitor / TV	2	Nos
e	Supply, Fixing, Testing & Commissioning of 12VDC 2A power supply for camera	2	Nos
f	Supply and laying of 1 + 3 RG 59 CCTV cable	100	Mtr.
7.2	Tack / Tack Back System		
a	Supply, Fixing, Testing & Commissioning of Tack / Tack Back Systems comprises of Console with Mike (inbled amp.) Ceiling	1	Set
b	Supply and laying of two core screened cable	50	Mtr.
7.3	Fire Alarm System		
a	Supply, Fixing, Testing & Commissioning of 2 Zone Conventional Fire Alarm Panel with complete set. (RAVEL Make)	1	Nos
b	Supply, Fixing, Testing & Commissioning of conventional Smoke Detectors with base (SYSTEM SENSOR Make)	6	Nos
c	Supply, Erection, Testing & Commissioning of Conventional Manual Call Point.(RAVEL Make)	1	Nos
d	Supply, Erection, Testing & Commissioning of Conventional Hooter/ Sounders (RAVEL Make)	1	Nos
e	Supply and Laying of 2 core 1.5 sqmm Copper armoured cable (Policab Make)	125	Mtr.
7.4	Emergency Switch, LMO & Warning Light		
a	Supply & Fixing of Emergency Stop switch and system On switch with base box	4	Nos
b	Supply and fixing of Magnetic Door switch	2	Nos
c	Supply,Erection, Testing and Commissioning of Warning Lamp for RED, Yellow, Green & Red, Green for OBI	1	Nos
a	Supply, Fixing, Testing & Commissioning of Weather Proof IR Camera, Sony CCD 1/3" colour camera	1	Nos
b	Supply, Fixing, Testing & Commissioning of PTZ Doom Camera Sony CCD 420TVL, X22 Zoom, 3.9 - 8.5 mm Auto iris lens,	1	Nos

Sl.	Item Description	Qty	Unit
c	Supply, Fixing, Testing & Commissioning of PTZ keyboard with joystick	1	Nos
d	Supply, Fixing, Testing & Commissioning of 24" LED Monitor / TV	2	Nos
e	Supply, Fixing, Testing & Commissioning of 12VDC 2A power supply for camera	2	Nos
f	Supply and laying of 1 + 3 RG 59 CCTV cable	100	Mtr.
7.5	Installation testing and commissioning of Reynold or other equivalent make 10TR Chiller with ancillary work such as piping		
7.6	PROFESSIONAL CHARGES:		
	Towards professional charges for filing application, preparation of drawings in necessary formats for approval, follow up and arranging		

Note:

- 1) The bidder quoting for the equipment, shall also quote for the entire turnkey schedules.
- 2) The bidder shall quote for the entire in the prescribed format SECTION – XI (G) - PRICE SCHEDULE FOR TURNKEY.
- 3) The bidder shall quote for all the schedules, if any of the schedules are not quoted, then their bid will be treated as non responsive.
- 4) The quote for turnkey basis shall be in INR only, if quoted rates are in any other currencies, then their bid will be treated as non responsive.
- 5) The bidder shall submit this schedule as a part of technical bid with the signed & sealed in all pages.

All other terms & condition of this tender remains unchanged

Name: _____

Business Address _____

Signature of Tenderer _____

Seal of the Tenderer _____