

# **TENDER DOCUMENT**

*FOR*

**HT ELECTRIFICATION WORK AT GH,KALPETTA WAYANAD**

**PART-III  
PRICE BID**

**TENDER NO. HLL / ID / 15/ 37**

**February 2016**

**HLL LIFECARE LIMITED.  
INFRASTRUCTURE DEVELOPMENT DIVISION**

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## 1. COMMERCIAL CONDITIONS

**1.1 THE ABSTRACT OF BILL OF QUANTITIES IN THE PRICE BID SHALL BE INVARIABLY FILLED. THOSE WHO BIDDERS DO NOT FILL WILL BE NON-RESPONSIVE AND WILL BE DISQUALIFIED FROM EVALUATION AND WILL BE TREATED AS TECHNICALLY NOT QUALIFIED.**

1.2 The tendered rate shall inter alia be deemed to include for the provision of all materials , process, operation and special requirements detailed in the particular specification irrespective of whether these are mentioned in the description of equipment schedule and Bill of quantities or not. It is an express condition of the contract that the tendered rates for various items in the Bill of Quantities shall be deemed to include for the full, entire and final condition of the contractor respective items of the works in accordance with the provision of the contract.

1.3 The tendered rate shall include for all taxes, duties, etc. as applicable and shall be quoted on the works contract basis for HT Electrification work at GH,Kalpetta Wayanad.

1.4 The tendered rate shall remain firm and free from variation due to rise in the cost of materials/equipment labour or any other reasons whatsoever during the contract period and valid extension.

1.4 The quantum of excise duty included in the tendered price, the rate at which they were assumed etc. shall be indicated in the tender.

## 2. UNIT RATES

2.1 Only approved work will be measured on completion and priced as per rates quoted against the respective items.

## 3. BRIEF DESCRIPTION OF PRICING

3.1 The tenderer shall furnish duly certified breakup of material and labour separately for each item of work. The same shall be attached separately along with the price bid.

**3.2The quoted price shall be inclusive of all taxes and duties whether payable by the contractor or to be deducted at source. This shall include those applicable among**

**VAT, Sales Tax, Income Tax, Customs Duty, Excise Duty, Turnover Tax, Service Tax, Work Contract Tax, Octroi, Labour Welfare Cess, swachh bharat cess or any other Taxes and Duties prevailing in respect of this contract. ANY BID STATING THAT TAXES ARE EXTRA WILL BE SUMMARILY REJECTED.**

**4. PRO-RATA VALUE**

The detailed break up of prices for various items of equipments and materials of the full system should be provided by successful tenderers within fifteen days from the date of letter of intent to facilitate the Employer for assessment and verification and to certify payment.

**5. INCOME TAX**

Any payment to the contractor as per contract, will be made after deducting income tax as per the rules and regulations.

**6. SALES TAX AND EXCISE DUTY**

The tenderer shall clearly indicate sales tax, Excise and works contract tax and other duties as applicable in his offer for carrying out this work.

**7. SUBMISSION OF BILL**

- 7.1 The contractor shall from time to time prepare and submit interim bills of the work executed and on completion of the contract, he shall prepare and submit the final bill. The measurements sheets in support of the interim and final bills shall be prepared by the contractor on the basis of measurements taken by him jointly with the project engineer and the said measurement sheets shall be submitted by him with the relevant bill.

**8. EXTRA ITEMS**

The contractor is bound to carry out any items of work necessary for the completion of the job even though such items may not have been included in the schedule of probable quantities or rates, such items being necessary or essential for completing the job. Variation order in respect of such additional items and their quantities will be issued in writing by the Employer.

All shavings, cuttings and other rubbish as it accumulates from time to time during the progress of work and on completion including that of the sub-contractors and special tradesman and all materials condemned by the project engineer shall be cleared and removed from the site by the contractor without any extra charge.

All measuring steel taps, scaffolding, ladders instruments and tools that may be required for taking measurements shall be supplied by the contractor.

## **9. OVER TIME WORK**

If the contractor is required to work night or on holidays in order to maintain the time schedule he shall take prior approval from the Employer. He should also provide and maintain at his own cost sufficient lights as may be necessary to enable the work to proceed satisfactorily during the night.

- 9.2 The contractor shall give full facilities to all other contractors working on site. He shall also arrange his programme of work so as not hinder the progress of other trades. The decision of the Employers on any point of dispute between the various parties shall be final and binding.
- 9.3 It is specifically pointed out that the contractor shall not be entitled to any compensation whatsoever on account of delay in procurement or supply of controlled materials and the rates quoted in the contract are fixed till the completion of the contract.
- 9.4 The contractor shall co-operate with other agencies appointed by the Employer for the work to proceed smoothly with the least possible delay and to the satisfaction.
- 9.5 The owners shall provide a source for power supply at one convenient point at site. The contractor shall at his own cost install a separate meter at the said source and lay additional cables from the said source also at his own cost. For the electricity consumed by the contractor he shall pay the owner the actual cost at the rate charged by the local authority for power for constructional purposes. The contractor shall also obtain the necessary permit for utilizing power for constructional purposes.

## **10. TERMS OF PAYMENT**

- 10.1 The rate of payment for the contract value under this contract shall be regulated and detailed below:

70% after supply of materials at site in good working condition on pro-rata basis.

20% after completion of installation in all respects.

Balance 10% will be paid after testing, commissioning & handing over to the client, including all required statutory approvals.

### **11.1 EXECUTION WORK**

- 11.1.1 The whole of the work as described in the contract (including bills of materials, specification and all drawings pertaining thereto) and as advised by the Owners/Employers from time to time is to be carried out and completed in all parts to the entire satisfaction of the Owners/Employers. Any minor details of construction which are obviously and fairly intended, or which may not have been definitely referred to in this contract, but which are usual construction practice and essential to the work, shall be included in this contract.

## **11.2 MAINTENANCE & TRAINING FOR PERSONNEL**

- 11.2.1 The contractor shall without any extra cost carry out for a period of 12 months after the installation is taken over by the owners, all routine and special maintenance and attend to any difficulties and defects that may arise in the operation of the system.
- 11.2.2 The contractor shall associate with the Employers' staff during erection and the maintenance period, in the maintenance/operation of the system..
- 11.2.3 If required, by the Employers, the contractor shall also train members of the Employers' staff at their works/service station without any extra charge.

## **11.3 CERTIFICATE OF COMPLETION**

- 11.3.1 The contractor shall intimate to HLL in writing as and when the works are completed and put into beneficial use in order to enable HLL to check certify to the Employer to take over the plants.
- 11.3.2 The work shall not be considered as completed and put into beneficial use until HLL have certified in writing that the same has been completed and put into beneficial use.
- 11.3.3 The defects liability period of one year shall commence from date of such completion or any specific date mentioned therein.

## **11.4 OPERATIONAL AND MAINTENANCE MANUALS**

- 11.4.1 The contractor shall also furnish the prints of all up-dated handing over along with required set of operating/maintenance manuals/instructions.

## **11.5 STATUTARY APPROVALS**

All statutory approvals pertaining to the installations including electrical inspector approvals shall be in the scope of the contractor.

**ALL ROWS SHALL BE FILLED, THIS IS MANDATORY  
(IF NIL OR NA, THAT MAY ALSO BE SHOWN)**

**BILL OF QUANTITIES**

**ABSTRACT**

<b>Sl. No.</b>	<b>Item</b>	<b>Amount in Rs</b>
1	HT Electrification work at GH,Kalpetta Wayanad.	
a)	Service tax component to be paid by the bidder	
b)	Service tax component to be directly paid by the HLL in case the bidder is a Proprietary firm	
	<b>GRAND TOTAL</b> <b>[INCLUDING 100% SERVICE TAX (a +b)]</b>	

**Signature of the Bidder with date**

**Availing HT Electrical Power Supply for General Hospital, Kainatty, Kalpetta, Wayanad.**

<b>Sl No.</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate in words and figures</b>	<b>Amount in words and figures</b>
<b>A. LMR Items</b>					
1	<b>Four Pole Structure</b>				
	Supply, fabrication, erection, testing & commissioning of 11kV Four Pole structure using required size, height of ISMB for poles and required size cross channel with ISMC for supporting structure for 11kV components, 11 KV pin, disc and stay insulators, supports, jumpers /interconnecting conductors with 0'SWG Cu, 25x3mm braided copper earthing for non current moving part like handle of AB switch,stay wire etc. The item includes erection of FP structure on suitable concrete foundation. The FP structure shall be painted with one coat of metal primer after fabrication and two coats of aluminium enamel paint after erection complete and consists of the following. The cost of the civil foundation is not considered in the item. The design of the civil foundation shall be submitted and got approved from the Engineer in charge				
	11kV, 400A, single brake, TP, gang operated AB switch with operating handle & locking mechanism - 2 set				
	11 kV Lighting Arrestors - 2 set				
	11 kV Drop out fuses - 2 set				
	11 kV Outdoor type CT/PT unit with suitable CT as per KSEB, class 0.5, 15VA CT & 11kV/110V class 0.5 100VA PT to be mounted on the DP structure- 1set.				
	The consumers DP structure shall be braced with state electricity board DP structure if required & interconnection shall be done with 0 SWG Cu wire. The required size SWG Cu wire / jumper shall be provided for providing HT supply to the Transformer.				



	The FP structure shall be provided with all necessary accessories for connecting to 11kV bushing of Transformer. The 11kV FP structure shall meet all the requirement of statutory authority.	Set	1		
2	<b>HT Metering Panel</b>				
	Fabrication, supply, installation, testing & commissioning of Outdoor type HT metering panel in suitable size weather proof sheet steel enclosure (14SWG) / Polycarbonate box for accomodating 3phase, 3wire, class 0.5, TOD meter, Test terminal block, control fuses & 10Cx2.5sqmm armoured copper cable for connection of TOD meter with CT/PT units (structure mount), with all necessary accessories as required. The work shall be as per state electricity board norms. The cost of the plinth for mounting the outdoor metering panel is not considered in the item. The design of the civil foundation shall be submitted and got approved from the Engineer in charge	Set	1		
3	<b>Oil Cooled Transformer</b>				
	Supply, installation, testing and commissioning of 500kVA, 11kV/433V, 3 phase, 50Hz, Delta star, DYn11, ONAN, copper double wound transformer with Off load tap changer in steps of $\pm 2.5\%$ upto $\pm 10\%$ , complete with, bi directional rollers, 11kV bushing for termination of HT lines & cable end box for termination of LT cables complete with rating and technical name plate, earthing terminals with lugs, lifting lugs in all respect with all necessary standard accessories and as per IS: 2026. The transformer shall have suitable enclosure for providing neutral CT on earthed star point with connector for connecting to low set earth fault relay in LT Isolation panel. All routing test as per IS: 2026 shall be conducted on the transformer. The transformer shall be mounted on suitable height plinth. The work shall be as per state electricity board norms. The cost of the plinth for mounting the transformer is not considered in the item. The design of the civil foundation shall be submitted and got approved from the Engineer in charge.	Set	1		
4	<b>LT Isolation Panel</b>				

	Supply, Installation, Testing & Commissioning of Outdoor type LT Isolation panel, made out of 2mm thick CRCA sheet, totally enclosed, IP54, free standing, floor mounted, dust and vermin proof, powder coated, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz, AC system, including internal wiring with suitable size wires, rotary handle, spreaders etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification. The panel shall be mounted on suitable height plinth. The cost of the plinth for mounting the panel is not considered in the item. The design of the civil foundation shall be submitted and got approved from the Engineer in charge				
	<b>Incomer</b>				
	1 no. 800A, FP, 50kA, ACB, MDO, microprocessor based release with OC, SC, E/F protection with shunt trip coil.				
	<b>Busbar</b>				
	1 Set of 800 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
	<b>Instruments</b>				
	1 No 3 phase Digital type, Voltmeter, Acc class 1				
	1 Set of 2A 10kA C curve SP control MCB				
	1 Set of phase indicating lamps, LED type, RYB.				
	1 set 140/5A, 5P10, 15VA resin cast neutral CT to be provided in the transformer neutral chamber and connected with suitable size interconnection Ar. Copper cable to the low set earth fault relay in the panel.	Set	1		
5	<b>Main Switch Board</b>				

	Supply, Installation, Testing & Commissioning of Main Switch Board , cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, including internal wiring with suitable size wires, rotary handle, spreaders, 3mm thick gland plate, hinged type door with neoprene gasket , panel earthing with suitable size earth strips etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
	<b>Incomer</b>				
	1 no. 800A, TP+NL Switch disconnecter with extended rotory handle, pad lock etc including all accessories as required.				
	<b>Busbar</b>				
	1 Set of 800 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy.				
	<b>Instruments</b>				
	1 set 3 phase Digital Multi function meter to read V, A, F, Kw with Acc class 1.				
	3 phase 4 wire CT operated energy meter, 5-10A, Acc. Class 1 - 1 no				
	Phase indicating lamps, LED type, RYB - 1 Set				
	2A 10kA C curve SP control MCB - 1 Set				
	800/5A, Class 1.0, 10VA, Cast Resin CT - 1 set				
	800/5A, Class 1.0, 15VA, Cast Resin CT - 1 set for APFC Relay				
	3 Nos. 3 phase Digital type, Ammeter (0-800A), Acc class 1 - 3 nos				
	<b>Outgoings</b>				
	500A, TP+NL, 35kA, MCCB, with thermal magnetic release for adjustable O/L & SC protection - 1 no				
	400A, TP+NL, 35kA, MCCB with thermal magnetic release for adjustable O/L & SC protection - 1 no				

	315A, TP+NL, 35kA, MCCB with thermal magnetic release for adjustable O/L & SC protection - 1 no				
	200A, TP+NL, 35kA, MCCB with thermal magnetic release for adjustable O/L & SC protection - 2 no				
		Set	1		
6	<b>APFC Panel</b>				
	Supply, Installation, Testing & Commissioning of cubicle type 100 kVAR APFC panel board (expandable to 150kVAR), made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, including internal wiring with suitable size wires, rotary handle, spreaders etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
	The capacitor chamber shall be provided with panel mounted cooling fan controlled with thermostat for auto operation and control switch for manual operation.				
	<b>Incomer</b>				
	1 no. 315A, TP+NL Switch disconnecter with extended rotory handle, pad lock etc including all accessories as required.				
	<b>Bus Bar</b>				
	400 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy - 1 Set				
	<b>Instruments</b>				
	3 phase Digital Multi function meter to read V, A, F with Acc class 1- 1 no				
	Phase indicating lamps, LED type, RYB - 1 Set				
	2A 10kA C curve SP control MCB - 1 Set				
	400/5A, Class 1.0, 10VA, Cast Resin CT - 1 set				
	8 stage microprocessor based APFC relay - 1 no				
	5 sets of ON,OFF push button.				

	5 sets of ON,OFF LED type indication lamp.				
	1 Set of Auto/manual switch.				
	<b>Outgoings</b>				
	63A FP capacitor duty MCB - 2 nos				
	40A FP capacitor duty MCB - 4 nos				
	25 kVAR MPP Heavy duty capacitor with capacitor duty contactor - 2 nos				
	10 kVAR MPP Heavy duty capacitor with capacitor duty contactor - 4 nos				
	10 kVAR MPP Heavy duty capacitor directly connected for Transformer No-load compensation				
	Space provision for providing 2 no 25kVAR MPP heavy duty capacitor with capacitor duty contactors, indication lamp, push button etc including control cabling.	Set	1		
7	<b>Emergency Panel</b>				
	Supply, Installation, Testing & Commissioning of Emergency Panel, cubicle type, made out of 2mm thick CRCA sheet, totally enclosed, IP42, free standing, floor mounting, dust and vermin proof, powder coated, indoor, compartmentalised, suitable for operation on 3 phase and neutral, 415 V, 50Hz AC system, including internal wiring with suitable size wires, rotary handle, spreaders, 3mm thick gland plate, hinged type door with neoprene gasket , panel earthing with suitable size earth strips etc. The panel shall include supply & installation of following switchgears, metering instruments and accessories as per specification.				
	<b>Incomer</b>				
	1 no. 500A, TP+NL Switch disconnecter with extended rotory handle, pad lock etc including all accessories as required.				
	<b>Bus Bar</b>				
	500 Amp TPN busbars of high conductivity electrolytic quality Aluminium alloy - 1 Set				
	<b>Instruments</b>				
	3 phase Digital Multi function meter to read V, A, F with Acc class 1- 1 no				
	Phase indicating lamps, LED type, RYB - 1 Set				

	2A 10kA C curve SP control MCB - 1 Set				
	500/5A, Class 1.0, 10VA, Cast Resin CT - 1 set				
	<b>Outgoing</b>				
	250A, TP+NL, 25kA, MCCB, with thermal magnetic release for adjustable O/L & SC protection - 1 no				
	200A, TP+NL, 25kA, MCCB, with thermal magnetic release for adjustable O/L & SC protection - 1 no				
	160A, TP+NL Switch disconnecter with extended rotory handle, pad lock etc including all accessories as required - 1 no.				
	100A, TP+NL, 25kA, MCCB, with thermal magnetic release for adjustable O/L & SC protection - 4 nos	Set	1		
8	Supply of following size 1.1 kV grade XLPE insulated, PVC sheathed, armoured Aluminium conductor power cable conforming to IS 7098 (Part 1) amended upto date.				
8.1	3.5C x 400 sqmm	m	160		
8.2	3.5C x 240 sqmm	m	130		
8.3	3.5C x 185 sqmm	m	130		

8.4	3.5C x 95 sqmm	m	120		
8.5	3.5C x 50 sqmm	m	100		
8.6	3.5C x 35 sqmm	m	140		
9	Supply of 3Cx2.5sqmm 1.1 kV grade XLPE insulated, PVC sheathed, armoured Copper conductor power cable conforming to IS 7098 (Part 1) amended upto date.	m	200		
10	Supplying and making end termination with brass compression gland and copper lugs for 3Cx2.5sqmm XLPE insulated and PVC sheathed copper conductor cable of 1.1 KV grade as required.	Each	12		
11	Earthing with G.I. earth plate 1200 mm X 1200 mm X 12 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke as required.	Set	6		

12	Supply and laying 40mm x 6mm GI strip at 0.5m below ground as strip earth electrode, including connection / terminating with nut, bolt, spring, washer etc as required (Jointing shall be done by overlapping and with 2 sets of GI nut bolt & spring washer spaced 50mm).	m	150		
13	Providing and fixing 40mm X 6mm GI strip on surface or in recess for connections etc. as required.	m	60		
14	Supply of 1x28W compact energy saving industrial fitting with CRCA sheet steel housing with 28W T5 Lamp, electronic ballast including all accessories as required. (Make: Bajaj BTER 128 / Wipro WIF 90128 SG / Havells LHFYBYF1ON1W028)	Each	10		
15	Supply of heavy duty exhaust fan 300 mm sweep, 900 rpm, metal blades of approved colour, for single phase 230 volt, 50Hz AC supply complete with motor, capacitor and all accessories as required (Make: Almonard / Crompton HDEF / Havells Turboforce).	Each	2		
16	Supplying and fixing 1x26W / 2x14W CFL / T5 Decorative compact luminaire with sheet steel housing, clear acrylic cover etc complete with all mounting accessories as required. The item shall also include suitable size lamp bracket fabricated out of B class G.I pipe to suit the lamp fitting with its clamping accessories, wiring with 3Cx1.5sqmm copper round unarmoured cable to nearest junction, lamp etc as required. (Make: Havells LHFTAUN1TN5J026 / Bajaj BTS LF 214 MS / Wipro WSF 14214 SG)	Each	2		



17	Supplying and fixing 30W LED Flood light luminaire with high pressure die cast housing, glass cover, heat sink, driver for LED light etc complete with all mounting accessories as required. The item shall also include supply & fixing of 50mm dia, 4m length (3m above ground level), B class GI pipe with bracket, all necessary clamping accessories to suit the lamp fitting, wiring with 3Cx1.5sqmm copper round unarmoured cable to the junction box etc as required. The item shall also include supply and fixing of suitable size outdoor type polycarbonate junction box mounted on the pole including 4 pole, 10A bakelite connector, 2A SP C curve MCB etc. The cost of the civil foundation including coping is not considered in the item. The design of the civil foundation shall be submitted and got approved from the Engineer in charge (Make: Havells LHFTAUN1TN5J026 / Bajaj BTSLF 214 MS / Wipro WSF 14214 SG)	Each	1		
18	Supplying and fixing 6 ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, with provision of 100 amps TP 16 kA MCCB as incomer, interconnection between incomer MCCB and bus bars (but without MCB's/ MCCB) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.)	Each	1		
19	Supplying and fixing 40A / 63A TP MCB, 415 Volts, "C" series, miniature circuit breaker in the existing MCB DB complete with connections, testing and commissioning etc as required.	Each	2		

20	Dismantling of existing power cable upto 50sqmm buried underground by suitable excavation, removal of protective covering, removal of cable, refilling the earth and stacking the cable & protective covering material to the place as directed by the Engineer in charge	m	120		
21	Dismantling of existing power cable upto 50sqmm from wall / cable tray and stacking the cable to the place as directed by the Engineer in charge	m	40		
22	Supply and installation of structural steel work with required size MS angle, MS flat etc for cable tray, and other structural steel work including cutting, hoisting, welding, bolting, fixing in position, hanging, and applying 2 coat of steel primer and 2 coat of enamel paint of approved quality all complete. The GA drawing and fixing arrangement shall be got approved from the Engineer-in-charge.	kg	750		
23	Supply and providing 3 nos of 9 Litre capacity MS Fire Bucket painted in post office red with primer coat of red oxide and written with white paint 'FIRE' mounted on MS angle frame work / wall bracket filled with fine sand, painting the bracket/ floor stand including making good the damages, colour washing etc. as required.	each	1		
24	Supply & fixing of Carbon-dioxide extinguisher on wall, ISI marked, 4.5 Kg, capacity made of high pressure seamless steel cylinder (CCE marked ) conforming to IS 2878, 8149. complete with wheel type valve with one meter long braided high pressure discharge hose complete in all respects including initial fill with CO2 gas.	each	2		

25	Supply and providing 6 mm thick & 1 m wide electrical grade chequered type rubber mat to withstand 3.3 kV dielectric strength conforming to IS 5429/ 1969.	m	12		
26	Supply and providing First Aid Chart duly framed and placed in a conspicuous location for clear vision.	No	1		
27	Supply of 15" long rubber Hand gloves 15kV grade with ISI marking.	Pair	1		
28	Supply and providing Electrical main single line Diagram duly framed and placed in a conspicuous location for clear vision.	Each	1		
29	Fabrication, supply and installation of 6mm thick MS chequered plate with suitable size angle frame work, fixing, painting with 2 coat of primer & 2 coat of enamel paint for covering cable trench etc as required	kg	100		

30	Preparation of electrical drawing, submission of drawings to Electrical inspectorate / KSEB and obtaining approval, arranging inspection for entire installation and other utilities, obtaining road cutting permission obtaining sanction orders for the energisation of the installation complete. Including all incidental expenses except the fees payable to the statutory authorities in the name of client.				
		Job	1		
<b>DSR Items</b>					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc. as required.				
		Point	15		
2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required				
2.1	2x1.5 sq mm + 1x1.5 sq.mm earth wire				
		m	60		
2.2	2x2.5 sq mm + 1x2.5 sq.mm earth wire				
		m	90		

3	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).	Each	3		
4	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	Each	1		
5	Supplying and fixing 3 pin , 5 amps ceiling rose on the existing junction box / wooden block including connection etc as required.	Each	15		
6	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	Each	10		
7	Installation of exhaust fan upto 450 mm in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.	Each	2		
8	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.				
8.1	100 Amp, 16 KA,TP MCCB	Each	1		

9	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
9.1	Single pole				
		Each	10		
10	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc as required.				
		Each	20		
11	Earthing with G.I. earth pipe 3.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.				
		Set	4		
12	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.				
		Set	6		
13	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt ) as required.				
		Set	2		

14	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	m	40		
15	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)m)	m	250		
16	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	m	50		
17	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	m	80		
18	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing as required.	m	100		
19	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
19.1	Upto 35 sqmm	m	270		

19.2	Above 35 sq. mm and upto 95 sq. mm	m	120		
19.3	Above 95 sq. mm and upto 185 sq. mm	m	60		
19.4	Above 185 sq. mm and upto 400 sq. mm	m	100		
20	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
20.1	Above 185 sq. mm and upto 400 sq. mm	m	90		
21	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				



21.1	Upto 35 sq. mm	m	20		
21.2	Above 35 sq. mm and upto 95 sq. mm	m	10		
21.3	Above 95 sq. mm and upto 185 sq. mm	m	10		
21.4	Above 185 sq. mm and upto 400 sq. mm	m	20		
22	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
22.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	20		
22.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	m	20		

22.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	m	15		
22.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	m	10		
23	Laying and fixing of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
23.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	m	30		
23.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	m	70		
23.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	m	45		
23.4	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	m	90		

24	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size ) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	each	30		
25	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
25.1	3.5 C x 400 sqmm	each	12		
25.2	3.5 C x 240 sqmm	each	10		
25.3	3.5 C x 185 sqmm	each	6		
25.4	3.5 C x 95 sqmm	each	6		
25.5	3.5 C x 50 sqmm	each	4		
25.6	3.5 C x 35 sqmm	each	4		

26	Providing laying & fixing 100mm dia GI pipe (medium class) in ground / wall complete with GI fittings including trenching (75cm deep) and refilling etc as required.	m	10		
27	Providing, laying and fixing following dia RCC pipe NP 2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc. as required.				
27.1	150 mm dia	m	10		
27.2	300 mm dia	m	30		
	Grand Total				

**The quoted rate should be inclusive of all applicable taxes including the work contract tax.**