

TICEL BIO PARK LTD

COMPETITIVE TECHNO COMMERCIAL TENDER

**INSTALLATION, TESTING AND COMMISSIONING OF ELECTRICAL WORKS IN
CONSTRUCTION OF TICEL BIO PARK – III,**

**At SF No. 66, 67, 68 & 75, Off Maruthamalai Road, Somayampalayam Village,
Bharathiyar University P.O, Coimbatore - 641 046
(G +13 UPPER FLOORS)**

BILL OF QUANTITIES

VOLUME - IV

DUE DATE FOR SUBMISSION: ON OR BEFORE 03.04.2019 BY 15.00 Hours

TO BE SUBMITTED TO:

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ENGINEERING CONSULTANTS:M/s TAAMAESSEK ENGINEERING CONSORTIUM

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TENDER SUBMITTED BY:

M/s. _____

Address _____

2019

| PROVIDING SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF ELECTRICAL (HT & LT) WORKS IN CONSTRUCTION OF TICEL BIO PARK-III AT COIMBATORE - 641046 | | | | |
|--|---|-----------------|-----------------------|---------------------|
| Sl.No | Description of Works | Erection | Total Erection | Total Amount |
| | HT & LT WORKS | | | |
| 01.00.00 | Sub Head No: I - HT PANEL | | | |
| 02.00.00 | Sub Head No: II - TRANSFORMER | | | |
| 03.00.00 | Sub Head No: III - SWITCH BOARDS/MOTOR CONTROL CENTRE | | | |
| 04.00.00 | Sub Head No: IV - BUS DUCT & RISING MAIN | | | |
| 05.00.00 | Sub Head No: V - DISTRIBUTION BOARDS | | | |
| 06.00.00 | Sub Head No: VI - LIGHT FITTINGS | | | |
| 07.00.00 | Sub Head No: VII - WIRING | | | |
| 08.00.00 | Sub Head No: VIII - Cabling | | | |
| 09.00.00 | Sub Head No: IX - EARTHING | | | |
| 10.00.00 | Sub Head No: X - LIGHTNING CONDUCTOR | | | |
| 11.00.00 | Sub Head No: XI - Street / Yard Lighting | | | |
| 12.00.00 | Sub Head No: XII - SAFETY EQUIPMENTS : | | | |
| 13.00.00 | Sub Head No: XIII - GROUND FLOOR-RESTAURANT, SEMINAR HALL,MD, MEETING , OFFICE ROOM | | | |
| 14.00.00 | Sub Head No: IVX - LIASIONING CEIG & TNEB APPROVALS | | | |
| TOTAL | | | | |

| PROVIDING SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF ELECTRICAL (HT & LT) WORKS IN CONSTRUCTION OF TICEL BIO PARK-III AT COIMBATORE - 641046 | | | | | | | | |
|---|---|-----|------|--------|--------------|----------|----------------|--------------|
| BILL OF QUANTITY | | | | | | | | |
| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
| 01.00.00 | Sub Head No: I - HT PANEL | | | | | | | |
| 01.01.00 | <p>SITC of Indoor type Ring Main Gear (RMG), 11 KV, 630A, with a rated breaking capacity of 500MVA and rated short time current of 60KA, 3phase, with 2 nos Air break switch as Incoming and 1 no Vacuum circuit breaker as outgoing, and panel with air insulated copper bus bars. The panel shall have both manual as well as motorized operation and shall conform to relevant IS/EB standards. The panel shall comprise of all necessary CT, PT, indication lamps, power pack, space heating thermostat, Electronic trivector meter, IDMTL Relay etc. complete as required.</p> <p>TANGEDCO Requirement (Local Supply authority)</p> <p># Bus bar dimension has to be 50x10mm HS sleeved.</p> <p># Metering CT should have an accuracy of 0.2S with 15VA burden.</p> <p># Protection CT should be ALF 5P20 with 15VA burden.</p> <p># The STC for CT & PT shall be 25KA/3sec</p> <p># Potential transformer burden shall be 50VA/0.2 accuracy.</p> <p># Ammeter/ Voltmeter shall be analog type with dual ratio.</p> <p># Power pack shall be 230V AV / 110 V DC</p> <p># LED indication lamps</p> <p># CT ratio for /5A, The same shall be /5A with secondary terminals at P2 side. (As per MD)</p> <p># The PT ratio is 11KV / 3 / 110V / 3 and draw out type.</p> | 1 | Set | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 01.02.00 | <p>Dismantling, Replacement of CTs and Power Pack, Testing and Transporting the 11KV PANEL WITH SF6 BREAKERS.</p> <p>A 11 KV 4 Panel with SF6 Breaker is available in TICEL-I. The 4th unit is a new one added to extend supply to TICEL -II but not used due to modified distribution. the above panel shall be disconnected from supply in all respect. The 4th New unit shall be used at the point of commencement of supply after dismantling it from the 4 Panel. The CT provided in the above panel shall be replaced by, 3 Nos 11KV, 150A-100A/5A after removing the existing CTs.</p> <p>In the old 3 SF6 Breakers panels(after removal of the new panel) the Power Pack is not working in all them. The Power Packs shall be replaced and other minor repairs and painting shall be attended. The above 3 panel & single panel shall be tested at CEIG lab & test certificate obtained after Repair. The above 3 panel & single panel shall be transported to TICEL-3 at Coimbatore. The cost shall include Repair & replacement of all component charges, testing charges, loading, transport to Coimbatore, transit insurance & unloading at site. The tenderer should inspect the site to access the quantum work involved before quoting.</p> | 1 | Lot | | | | | |
| 01.03.00 | <p>Erection, Testing and commissioning of set of totally enclosed, floor standing, sheet steel clad cubicle pattern with Single Panel 11 KV HT SF6 Switch Board as outgoing panel with one set of 630 amps coloured PVC sleeved copper bus bars, Surge arrestor and accessories shifted from ticel-1 after attending minor repairs referred in item no. 01.02.00</p> | 1 | Lot | | | | | |
| 01.04.00 | <p>Erection, Testing and commissioning of 1 set of totally enclosed, floor standing, sheet steel clad cubicle pattern 3 Panel 11 KV HT SF6 Switch Board, 1 no as Incomer and 2 Nos as outgoing panel with one set of 630 amps coloured PVC sleeved copper bus bars and accessories shifted from ticel-1 after attending minor repairs referred in item no. 01.02.00</p> | 1 | Lot | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 01.05.00 | Supplying of 11KV, 3 core, 240 sq.mm, Earthed, XLPE Insulated, Aluminium conductor individual core screened, flat steel strip armoured, PVC sheathed cable conforming to IS 7098 / (PART-II) 1985 | 400 | Metre | | | | | |
| 01.06.00 | Laying of one No. 11KV, 3 core, Earthed, XLPE Insulated, Aluminium conductor individual core screened, flat steel strip armoured, PVC sheathed cable of 240 sq.mm in the existing RCC /HUME /STONE WARE/ METAL PIPE. | 10 | Metre | | | | | |
| 01.07.00 | Laying of one No. 11KV, 3 core, Earthed, XLPE Insulated, Aluminium conductor individual core screened, flat steel strip armoured, PVC sheathed cable of 240 sq.mm in the existing Masonary open duct / Cable trays as required. | 15 | Metre | | | | | |
| 01.08.00 | Laying of one No. 11KV, 3 core, Earthed, XLPE Insulated, Aluminium conductor individual core screened, flat steel strip armoured, PVC sheathed cable of 240 sq.mm. direct in depth ground excavation at 1 meter, sand cushioning 100mm, protective covering with RCC Trough and refilling the trench with excavated soil & consolidating etc. as required. and as specification. | 375 | Metre | | | | | |
| 01.09.00 | Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for the following size of 3 core,240 sq.mm, XLPE aluminium conductor cable of 11 KV grade as required : | 8 | Each | | | | | |
| | Total for Sub Head No: I | | | | | | | |
| 02.00.00 | Sub Head No: II - TRANSFORMER | | | | | | | |
| 02.01.00 | Dismantling the 1250 KVA, 11KV/ 433 V, 3 Phase Volt amp Make Transformer with base wheel after removing the Busduct from Transformer to MV Panel, RTCC panel & accessories . | 2 | lots | | | | | |
| 02.02.00 | Conducting Major overhaul & other works on transformer as per the specification given in volume-3 | 2 | lots | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 02.03.00 | Loading and Transporting the dismantled 2 Nos 1250KVA.Transformer, RTCC panel & accessories to Coimbatore. The rate includes Transport charge, Transit insurance and unloading at Coimbatore site. | 2 | lots | | | | | |
| 02.04.00 | Erection of the above 1250 KVA, 11KV/433 V, 3 phase Transformer, RTCC panel & accessories on the constructed foundation. | 2 | lots | | | | | |
| 02.05.00 | Supply,laying,testing and commissioning of 19 core 2.5 sqmm PVC insulated, PVC sheathed armoured copper conductor cable. | 100 | Metre | | | | | |
| 02.06.00 | Supply, erection, testing and commissioning of terminations for 19 core 2.5 sqmm armoured copper cable. | 10 | Each | | | | | |
| 02.07.00 | Supply,laying,testing and commissioning of 4 core 2.5 sqmm PVC insulated, PVC sheathed armoured copper conductor cable. | 235 | Metre | | | | | |
| 02.08.00 | Supply, erection, testing and commissioning of terminations for 4 core 2.5 sqmm armoured copper cable. | 4 | Each | | | | | |
| | Total for Sub Head No: II | | | | | | | |
| 03.00.00 | Sub Head No: III - SWITCH BOARDS/MOTOR CONTROL CENTRE | | | | | | | |
| | FABRICATION | | | | | | | |
| | 1. ALL Panel shall be made out of 14/16 SWG CRCA sheet steel and as per specification | | | | | | | |
| | 2. The panel shall be provided with copper earth bus bars of required capacity along with the entire length of the panel and cost of the same shall be included in cost of the panel. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| | 3. The bus bar chamber size shall not be less than 300 mm in all sub switch boards. The bus bars shall be air insulated and made up of high conductivity ALUMINIUM, with 99.5 % pure confirming to IS 19501 high purity | | | | | | | |
| | 4. The cable chamber width shall not be less than 300 mm in case of all floor mounted boards. In respect of wall mounted boards 250 mm width is acceptable. | | | | | | | |
| | 5. All MCCBs shall be provided with front drive mechanism with necessary door interlock. | | | | | | | |
| | 6. MCCBs with more than 63 A rating shall be provided with spreaders and terminal shrouds. | | | | | | | |
| | 7. The panel shall be powder coated. | | | | | | | |
| | 8. Fabrication & mounting shall confirm to Technical Specification given under switch boards. | | | | | | | |
| | 9. All MCCBs are Ics only. | | | | | | | |
| 03.01.00 | MAIN MV PANEL - I | 1 | Each. | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage floor mounting Cubicle Type Single bus bar system Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | Transformer-1&2 Incomer chamber shall be provided for future installation of 3200A ACB & Provision should be made to connect 3200A TPN Aluminium busduct at top in future. | | | | | | | |
| | A) Incomer - 2Nos. (Transformer) : | | | | | | | |
| | 2000 AMPS ACB, 50 KA (Ics) AC Motor operated | | | | | | | |
| | Draw Out (EDO) Type Four Pole Microprocessor based relay having Over current, | | | | | | | |
| | short circuit with time setting and | | | | | | | |
| | 6NO + 6 NC, indication for test, service, isolated ON /OFF trip indications, | | | | | | | |
| | Shutter Assembly, Racking interlock Manual /Electrical closing & tripping | | | | | | | |
| | . as specified in the technical Specifications. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|-------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | Metering Compartment: | | | | | | | |
| | 1 No- Digital Load Manager of Enercon Make (No.6400) or eqvt. With RS 485 Modubus protocol | | | | | | | |
| | 1 Set – 2000/5A CT CL0.5 15VA for Measurement | | | | | | | |
| | 1 Set – 2000/5A CT CL 1 15VA for PF Correction Relay | | | | | | | |
| | 1 Set – Indication lamps for R,Y,B, Breaker ON(Red), Breaker OFF (Green), Breaker Trip (Amber) with control fuses, Auto Manual selector switch, TNC Switch. | | | | | | | |
| | 1No - Earth fault relay -CDG11 | | | | | | | |
| | 1 Set – 2000/5A CT CL5P10 15VA for Protection Relay | | | | | | | |
| | 1 Set – 9 Window annunciator Panel for Transformer Related Alarms/Trips | | | | | | | |
| | Note: Provision should be made to connect 2000A TPN Aluminium busduct at top. | | | | | | | |
| | DG INCOMERS - 1Nos. | | | | | | | |
| | 2500 AMPS ACB, 50 KA (Ics) AC Motor operated | | | | | | | |
| | Draw Out (EDO)Type Four Pole Microprocessor based relay having Over current, short circuit with time setting and 6NO + 6 NC,indication for test,service,isolated ON /OFF tripindications, ShutterAssembly,Racking interlock Manual /Electrical closing& tripping . as specified in the technicalSpecifications. | | | | | | | |
| | Metering Compartment: | | | | | | | |
| | 1 No. Multiparameter Enercon make 6400 or eqvt. With RS 485 MODUBUS protocol with suitable CTs . | | | | | | | |
| | 1 Set – 2500/5A CT CL0.5 15VA for Measurement | | | | | | | |
| | 1 Set – Indication lamps for R,Y,B, Breaker ON(Red), Breaker OFF (Green), Breaker Trip (Amber) with control fuses.Auto Manual selector switch, TNC Switch. | | | | | | | |
| | Note: Provision should be made to connect 2500A TPN Aluminium busduct at top. | | | | | | | |
| | DG INCOMERS - 1Nos. | | | | | | | |
| | 1250 AMPS ACB, 50 KA (Ics) AC Motor operated | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|-------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | Draw Out (EDO)Type Four Pole Microprocessor based relay having Over current, short circuit with time setting and 6NO + 6 NC,indication for test,service,isolated ON /OFF tripindications, ShutterAssembly,Racking interlock Manual /Electrical closing& tripping as specified in the technical Specifications. | | | | | | | |
| | Metering Compartment: | | | | | | | |
| | 1 No. Multiparameter Enercon make 6400 or eqvt. With RS 485 MODUBUS protocol with suitable CTs . | | | | | | | |
| | 1 Set – 1250/5A CT CLO.5 15VA for Measurement | | | | | | | |
| | 1 Set – Indication lamps for R,Y,B, Breaker ON(Red), Breaker OFF (Green), Breaker Trip (Amber) with control fuses.Auto Manual selector switch, TNC Switch. | | | | | | | |
| | Note: Provision should be made to connect 1250A TPN Aluminium busduct at top. | | | | | | | |
| | OUTGOINGS: | | | | | | | |
| | ACB chamber shall be provided for suitable future 1600 A, TPN, Draw out type Air Circuit Breaker owith 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based Release.- 2 NOs. | | | | | | | |
| | 1600 A, TPN, Draw out type Air Circuit Breaker with 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based Release.- 4 NOs. | | | | | | | |
| | 1000 A, TPN, Draw out type Air Circuit Breaker with 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based Release.- 5 NOs. | | | | | | | |
| | 800 A, TPN, Manual Draw out type Air Circuit Breaker with 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based LSIG Release.- 2 NOs. | | | | | | | |
| | 630 A, TPN, Manual Draw out type Air Circuit Breaker with 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based Release.- 2 NOs. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|-------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | 400 Amps TP&N Fixed Type MCCB with 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based Release - 2 NOS. | | | | | | | |
| | 250 Amps TP&N Fixed Type MCCB with 50 kA Short Circuit Rating with front adjustable electronic / microprocessor based Release - 1 NOS. | | | | | | | |
| | BUS COUPLERS- 1 Nos. | | | | | | | |
| | 3200 AMPS ACB, 50 KA (1cs) 4 Pole AC Motor | | | | | | | |
| | operated Draw out(EDO) type without release with ON/ OFF indication lamps with control fuses, Auto Manual selector switch, TNC Switch. | | | | | | | |
| | Busbar: | | | | | | | |
| | 1 Set of 3200 A, TP& N Aluminium Busbar Bar for the entire length of the MV Panel as per specification with suitable RYBN color coding heat shrink sleeve. The bus bars shall be air insulated and made up of high conductivity ALUMINIUM, with 99.5 % pure conforming to IS 19501 high purity | | | | | | | |
| | The Phase Bus bar shall be 4 Runs of 100 x 10 mm. and the Neutral bar shall be 2 Runs of 100 x 10 mm. The Earth CU. Bus bar shall be 1 Runs of 50 x 10 mm. | | | | | | | |
| | Note : Outgoing feeder shall be having digital type Energy meter, Voltmeter, Ammeter (Multifunctional Meter) and selector switch with suitable rating CTs with communication port RS 485 having MODBUS Protocol. | | | | | | | |
| | All switch boards shall be fabricated as per the detailed specification enclosed. Suitable size outgoing cable chamber and extra busbars should be provided for connecting the number of outgoing cables as per the main MV schematic drawing. The board shall be fabricated for future extension of the panel board. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | All the transformers incomer, DGs incomer and bus coupler shall be electrical & mechanical interlocking arrangements and also provided Auto/Manual Selector Switch with PLC Control ..Incoming feeders shall be having digital type multi parameters, meters with communication port RS 485 having MODBUS Protocol,all relays and releases shall be micro processor based. | | | | | | | |
| | Automatic fire extinguisher shall be provided for all Incoming and outgoing feeders.Outgoing feeder should have dedicated potential free contacts (ON/OFF) & TRIP status to monitor mentioned status from BMS system. Incoming feeder should (ON/OFF) & TRIP from BMS system through 24V flag relay & BMS relay by BMS Vendor. All parameter shall be view in BMS systems, So Suitable ACB shall be provided by Electrical Vendor. | | | | | | | |
| | | | | | | | | |
| 03.02.00 | Supplying, fixing and testing and commissioning of 1000A ACB MDO Type (50 KA rating) in a Powder coated weather proof MS sheet steel enclosure in surface on angle iron / flat iron frame work as required (The enclosure size shall be suitable for receiving 3 Runs of 3.5C X 400 Sqmm AL. AR. Cable for the incoming and 4 Runs of 3.5C X 240 Sqmm CU. UN.AR. Cable for out going cable directly) For CHI LLER KIOSK PANEL (OUTDOOR TYPE) | 2 | Each | | | | | |
| | Metering Compartment: | | | | | | | |
| | 1 No. Multiparameter Enercon make 6400 or eqvt. With | | | | | | | |
| | RS 485 MODUBUS protocol with suitable CTs . | | | | | | | |
| | 1 Set – 1250/5A CT CLO.5 15VA for Measurement | | | | | | | |
| | 1 Set – Indication lamps for R,Y,B, Breaker ON(Red), Breaker OFF (Green), Breaker Trip (Amber) with control fuses. | | | | | | | |
| | | | | | | | | |
| 03.03.00 | ESSENTIAL PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | A) Incomer - 2Nos. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|-------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | 800 AMPS ACB, 35 KA (Ics) AC Motor operated | | | | | | | |
| | Draw Out (EDO)Type Four Pole Microprocessor based relay | | | | | | | |
| | having Over current, | | | | | | | |
| | short circuit with time setting and | | | | | | | |
| | 6NO + 6 NC,indication for test,service,isolated ON | | | | | | | |
| | /OFF tripindications, | | | | | | | |
| | ShutterAssembly,Racking interlock Manual /Electrical | | | | | | | |
| | closing& tripping | | | | | | | |
| | Then Incomers provided with mechanical interlock with two locks and | | | | | | | |
| | single key as specified in the technicalSpecifications. | | | | | | | |
| | Each Metering Compartment: | | | | | | | |
| | 1 No- Multi function meter With RS 485 Modubus protocal | | | | | | | |
| | 1 Set – 800/5A CT CL0.5 15VA for Measurement | | | | | | | |
| | 1 Set – 800/5A CT CL 1 15VA for EB sensing to Dg start | | | | | | | |
| | 1 Set – Indication lamps for R,Y,B, Breaker ON(Red), Breaker OFF | | | | | | | |
| | (Green), Breaker Trip (Amber) with control fuses, Auto Manual | | | | | | | |
| | selector switch, TNC Switch. | | | | | | | |
| | OUTGOINGS: | | | | | | | |
| | 400 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of | | | | | | | |
| | 35 kA Short Circuit Rating with Thermal Adjustable O/L and Magnetic | | | | | | | |
| | Fixed S/C Protection - 2 NOS. | | | | | | | |
| | 250 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of | | | | | | | |
| | 35 kA Short Circuit Rating with Thermal Adjustable O/L and Magnetic | | | | | | | |
| | Fixed S/C Protection - 3 NOS. | | | | | | | |
| | 200 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of | | | | | | | |
| | 35 kA Short Circuit Rating with Thermal Adjustable O/L and Magnetic | | | | | | | |
| | Fixed S/C Protection - 1 NOS. | | | | | | | |
| | Busbar: | | | | | | | |
| | 1 Set of 800 A, TP& N Aluminium Busbar Bar for the entire length of | | | | | | | |
| | the Panel as per specification with suitable RYBN color coding heat | | | | | | | |
| | shrink sleev. | | | | | | | |
| | The Phase Bus bar shall be 100 x 10 mm. and the Neutral bar shall | | | | | | | |
| | be 100 x 6 mm. The Earth CU. Bus bar shall be 25 x 6 mm. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | All the MV panel incomer 1&2 shall be electrical & mechanical interlocking arrangements and also provided Auto/Manual Selector Switch with PLC Control.. Incoming feeders shall be having digital type multi parameters, meters with communication port RS 485 having MODBUS Protocol, all relays and releases shall be micro processor based. | | | | | | | |
| 03.04.00 | SSB-G.F | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 2 Nos 400 Amps TP&N Type Motorised MCCB with Electrical interlocking | | | | | | | |
| | The panel should be suitable for changeover the power automatically from source-1 (I/C-1) to source-2 (I/C-2) and vice versa while power failure happened at any one source with necessary Single phasing preventer, LVM's and control contactors, On Delay Timer, EB ON / DG ON Lamps and Control MCB - 2 Sets and all required accessories. And also provide the selector switch for selecting auto / manual mode. In normal case the power shall be feed from source-1. | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 400 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 50 x 10 mm. and the Neutral bar shall be 50 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have Multi Function meter,suitable rating CTs with communication port RS 485 having MODBUS Protocol.. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | OUT GOINGS | | | | | | | |
| | 2 Nos 125 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi Function meter, suitable rating CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 11 Nos 63 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi Function meter, suitable rating CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 2 Nos 32 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi Function meter, suitable rating CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 1 Nos. Dummy MCCB chamber | | | | | | | |
| | | | | | | | | |
| 03.05.00 | UPS PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 63 Amps TP+2N Fixed Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Thermal Adjustable O/L and Magnetic Fixed S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 100 Amps TP+2N Copper Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 20 x 4 mm. and the Neutral bar shall be 2 Run of 25 x 4 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 1 No. 0- 10V True RMS Digital voltmeter between Neutral And Earth with RS485 | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type Multi function meter, suitable rating CTs with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 1 Nos 40 Amps TP+2N Fixed Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi function meter, suitable rating CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 3 Nos 32 Amps TP+2N Fixed Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi function meter, suitable rating CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | Note : IN/Outgoing feeder should have dedicated potential free contacts (ON/OFF) & TRIP status to monitor mentioned status from BMS system | | | | | | | |
| | | | | | | | | |
| 03.06.00 | COMMON & LAB AHU METERING PANEL (FLOORS 1st to 13th) | 13 | NOS | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 2 Nos 125 Amps TP&N Type Motorised MCCB with Electrical interlocking | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|-------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | The panel should be suitable for changeover the power automatically from source-1 (I/C-1) to source-2 (I/C-2) and vice versa while power failure happened at any one source with necessary Single phasing preventer, LVM's and control contactors, On Delay Timer, EB ON / DG ON Lamps and Control MCB - 2 Sets and all required accessories. And also provide the selector switch for selecting auto / manual mode. In normal case the power shall be feed from source-1. | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 125 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoings. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 1 Nos. 63 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection with suitable digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoings. | | | | | | | |
| | 1 Nos. 40 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection with suitable digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoings. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 5 Nos. 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection with suitable digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 2 Nos. Dummy chamber | | | | | | | |
| 03.07.00 | LAB METERING PANEL (FLOORS 1st to 13th) | 13 | NOS | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 2 Nos 320 Amps TP&N Type Motorised MCCB with Electrical interlocking | | | | | | | |
| | The panel should be suitable for changeover the power automatically from source-1 (I/C-1) to source-2 (I/C-2) and vice versa while power failure happened at any one source with necessary Single phasing preventer, LVM's and control contactors, On Delay Timer, EB ON / DG ON Lamps and Control MCB - 2 Sets and all required accessories. And also provide the selector switch for selecting auto / manual mode. In normal case the power shall be feed from source-1. | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 400 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 50 x 10 mm. and the Neutral bar shall be 50 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 5 Nos. 100 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection with suitable digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 3 Nos. Dummy MCCB chamber | | | | | | | |
| 03.08.00 | LIFT PANEL | 1 | Each | | | | | |
| | Design, supply, fixing, testing and commissioning of cubicle type floor mounting switch board comprising of the following, the board shall be fabricated as per the detailed specification enclosed | | | | | | | |
| | INCOMER: | | | | | | | |
| | 2 Nos 200 Amps TP&N Type Motorised MCCB with Electrical interlocking | | | | | | | |
| | The panel should be suitable for changeover the power automatically from source-1 (I/C-1) to source-2 (I/C-2) and vice versa while power failure happened at any one source with necessary Single phasing preventer, LVM's and control contactors, On Delay Timer, EB ON / DG ON Lamps and Control MCB - 2 Sets and all required accessories. And also provide the selector switch for selecting auto / manual mode. In normal case the power shall be feed from source-1. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type Multi function meter to read KWH, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | OUT GOINGS | | | | | | | |
| | 1 Nos 125Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Fixed O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 3 Nos 100Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Fixed O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 1 Nos 32Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Fixed O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | Busbar: | | | | | | | |
| | 1 Set of 200 A, TP& N Aluminium Busbar with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 10 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | | | | | | | | |
| 03.09.00 | TERRACE VENTILATION PANEL-1 | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type switch board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 125 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 125 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 2 Nos 63 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection. | | | | | | | |
| | 3 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection. | | | | | | | |
| | | | | | | | | |
| 03.10.00 | VENTILATION PANEL-2/MOTOR CONTROL CENTRE | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Motor Control centre with Type -II coordination components suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 80 Amps TP&N Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 100 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 7 Nos DOL starters suitable for 2.25 KW,3 phase,415 V, Ventilation Fans with 16 Amps TP&N Type MCCB Frame size ,with MCCB Rating as per type-II coordination and 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection, Contactor, Over load relay and Single phase preventor. All components shall be conforming to Type -II coordination | | | | | | | |
| | 2 Nos DOL starters suitable for 1.1 KW,3 phase,415 V, Ventilation Fans with 16 Amps TP&N Type MCCB Frame size, with MCCB Rating as per type-II coordination and 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection, Contactor, Over load relay and Single phase preventor. All components shall be conforming to Type -II coordination | | | | | | | |
| 03.11.00 | VENTILATION PANEL-3 | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Switch Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 63 Amps TP&N Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 63 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeev. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 6 Nos 40Amps TP&N Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| 03.12.00 | VENTILATION PANEL-4/MOTOR CONTROL CENTRE | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Motor Control centre with Type -II coordination components suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 63 Amps TP&N Type MCCB with Manual Closing Mechanism of 10 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 63 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 5 Nos DOL starters suitable for 3.7 KW,3 phase,415 V, Ventilation Fans with 16 Amps TP&N Type MCCB Frame size, with MCCB Rating as per type-II coordination and 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection, Contactor, Over load relay and Single phase preventor. All components shall be conforming to Type -II coordination | | | | | | | |
| 03.13.00 | COMPRESSOR PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Switch Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 320 Amps TP&N Type MCCB with Manual Closing Mechanism of 35 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 320 Amps TP&N Aluminium Bus Barswith suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 40 x 10 mm. and the Neutral bar shall be 25 x 10 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 3 Nos 200 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 2 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| 03.14.00 | CHILLER PUMP PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Switch Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 250 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 250 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 30 x 10 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 5 Nos 100 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 4 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| 03.15.00 | STP & WTP PANEL | 1 | Each | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 250 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 250 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 30 x 10 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 1 Nos 100 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 3 Nos 63 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 7 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| 03.16.00 | WTP PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 100 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | BUS BARS | | | | | | | |
| | 1 Sets of 100 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 3 Nos 63 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | 7 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| | | | | | | | | |
| 03.17.00 | UTILITY PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 250 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 250 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 30 x 10 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 2 Nos 100 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 1 Nos 80 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 4 Nos 63 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 4 Nos 32 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection with suitable digital type Multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 2 Nos. Dummy MCCB chamber | | | | | | | |
| 03.18.00 | AHU PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 1 Nos 63 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 100 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 8 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection | | | | | | | |
| 03.19.00 | PUMP PANEL | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type switch board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |
| | 1 Nos 63 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 100 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol. All components shall be conforming to Type -II coordination | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 6 Nos 32 Amps TP&N Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Adjustable Thermal O/L and Fixed Magnetic S/C Protection. All components shall be conforming to Type - II coordination | | | | | | | |
| 03.20.00 | 400KVAR CAPACITOR PANEL (AT SUB STATION) | 2 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage floor mounting Cubicle type APFCR panel suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached including necessary control wiring for automatic correction of Power factor (12 Stage)and as specification. | | | | | | | |
| | Incomer | | | | | | | |
| | 1600 AMPS ACB, 50 KA (Ics) 4 Pole AC Motor operated Draw out(MDO) type without release with ON/ OFF indication lamps with control fuses, Auto Manual selector switch, TNC Switch. | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches . | | | | | | | |
| | 1 No Automatic Power factor correction 12 stage relay for automatic correction of Power factor. | | | | | | | |
| | Busbars | | | | | | | |
| | 1600 amps TPN Aluminium Bus bar with suitable RYBN color coding heat shrink sleeve. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|-------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | The Phase Bus bar shall be 2 Runs of 100 x 10 mm. and the Neutral bar shall be 1 Runs of 100 x 10 mm. The Earth CU. Bus bar shall be 1 Runs of 25 x 10 mm. | | | | | | | |
| | OUTGOINGS | | | | | | | |
| | 2 Set of 100KVAR capacitor bank each comprising of: | | | | | | | |
| | i) 1 no. 400 A TP Fixed Type MCCB with manual closing mechanism of 25 kA rating with Thermal and Magnetic Short Circuit Protection | | | | | | | |
| | ii) 2 No Triple pole capacitor duty contactor suitable for rating of capacitor. | | | | | | | |
| | iii) 1 Set of ON/ OFF push button and indicating lamps. | | | | | | | |
| | iv) 2 Nos. 50 KVAR, 415V, 3 Phase, Mixed dielectric capacitor as per IS 13585 | | | | | | | |
| | 2 sets of 50KVAR capacitor bank each comprising of: | | | | | | | |
| | i) 1 no.200A TP Fixed Type MCCB with manual closing mechanism of 25 kA rating with Thermal and Magnetic Short Circuit Protection | | | | | | | |
| | ii) 1 No Triple pole capacitor duty contactor suitable for rating of capacitor. | | | | | | | |
| | iii) 1 Set of ON/ OFF push button and indicating lamps. | | | | | | | |
| | iv) 1 No. 50 KVAR, 415V, 3 Phase, Mixed dielectric capacitor as per IS 13585 | | | | | | | |
| | 1 sets of Control gears alone for 50KVAR capacitor bank (Without capacitor) each comprising of: | | | | | | | |
| | i) 1 no.200A TP Fixed Type MCCB with manual closing mechanism of 25 kA rating with Thermal and Magnetic Short Circuit Protection | | | | | | | |
| | ii) 1 No Triple pole capacitor duty contactor suitable for rating of capacitor. | | | | | | | |
| | iii) 1 Set of ON/ OFF push button and indicating lamps. | | | | | | | |
| | 2 sets of 25KVAR capacitor bank each comprising of: | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | i) 1 no.100A TP Fixed Type MCCB with manual closing mechnism of 25 kA rating with Thermal and Magnetic Short Circuit Protection | | | | | | | |
| | ii) 1 No Triple pole capacitor duty contactor suitable for rating of capacitor. | | | | | | | |
| | iii) 1 Set of ON/ OFF push button and indicating lamps. | | | | | | | |
| | iv) 1 No. 25 KVAR, 415V, 3 Phase, Mixed dielectric capacitor as per IS 13585 | | | | | | | |
| | 2 sets of 15KVAR capacitor bank each comprising of: | | | | | | | |
| | i) 1 no.63A TP Fixed Type MCCB with manual closing mechnism of 25 kA rating with Thermal and Magnetic Short Circuit Protection | | | | | | | |
| | ii) 1 No Triple pole capacitor duty contactor suitable for rating of capacitor. | | | | | | | |
| | iii) 1 Set of ON/ OFF push button and indicating lamps. | | | | | | | |
| | iv) 1 No. 15 KVAR, 415V, 3 Phase, Mixed dielectric capacitor as per IS 13585 | | | | | | | |
| | 2 sets of 10KVAR capacitor bank each comprising of: | | | | | | | |
| | i) 1 no.63A TP Fixed Type MCCB with manual closing mechnism of 25 kA rating with Thermal and Magnetic Short Circuit Protection | | | | | | | |
| | ii) 1 No Triple pole capacitor duty contactor suitable for rating of capacitor. | | | | | | | |
| | iii) 1 Set of ON/ OFF push button and indicating lamps. | | | | | | | |
| | iv) 1 No. 10 KVAR, 415V, 3 Phase, Mixed dielectric capacitor as per IS 13585 | | | | | | | |
| | | | | | | | | |
| | Total for Sub Head No: III | | | | | | | |
| | | | | | | | | |
| 04.00.00 | Sub Head No: IV - BUS DUCT & RISING MAIN | | | | | | | |
| | | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|-------|--------|--------------|----------|----------------|--------------|
| 04.01.00 | Supply,Erection,Testing and Commissioning of 2000 A 4P 433v, 50HZ, LV BUS duct comprising of TPN Aluminium Busbar housed in 14 swg CRCA sheet enclosure necessary right angle bends, Adapter chambers, 25 x 6mm twin copper earth bus for the entire length and required MS supports, from Transformer secondary side to MV panel.(As per the detailed Technical Specification enclosed.)-Out door Type - IP 54 | 11 | Meter | | | | | |
| | The Phase Bus bar shall be 2 Runs of 125 x 10 mm. and the Neutral bar shall be 1 Runs of 125 x 10 mm. | | | | | | | |
| 04.02.00 | Supply,Erection,Testing and Commissioning of 2000 A TPN 433v, 50HZ, LV BUS duct comprising of TPN Aluminium Busbar housed in 14 swg CRCA sheet enclosure necessary right angle bends, Adapter chambers, 25 x 6mm twin copper earth bus for the entire length and required MS supports, from Transformer secondary side to MV panel.(As per the detailed Technical Specification enclosed.)-In door Type - Ingress Protection of not less than IP 4X as per IS:2147. | 15 | Meter | | | | | |
| | The Phase Bus bar shall be 2 Runs of 125 x 10 mm. and the Neutral bar shall be 1 Runs of 125 x 10 mm. | | | | | | | |
| 04.03.00 | Supply,Erection,Testing and Commissioning of 2000A Aluminium Flexible expansion joints (jointing portion to be tinned) at the Transformer side and MV panel side with required Standard Accessories etc., complete as required.(1 set = R,Y,B& N) (Each 5Meter to be provide flexible joints for each phase and neutral busbar) | 6 | Set | | | | | |
| 04.04.00 | Design, supply, erection, testing and commissioning of 2000 Amps Phase cross changeover box suitable for TPN Aluminium bus duct including all accessories. (it will operate in case of phase change over is required as per site condition) (RYBN=1 set) | QRO | Set | | | | | |
| | | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 04.05.00 | Note:The raising main measurement shall be taken from top of incomer to top of the raising main enclosure Raising Mains shall be provided with 25 x 3mm double copper earth bar of capacity as per specifications for the entire length and cost of earth bar shall be included. | | | | | | | |
| 04.05.01 | Supply, Erection, Testing and Commissioning of 1600 A rated TPN Aluminium Busbar Raising Main/ Rising main incomer as per specifications - In door Type - Ingress Protection of not less than IP 4X as per IS: 2147. | 135 | Meter | | | | | |
| 04.05.02 | Supply,erection, testing and commissioning of 1 No 1600 A TP&N Fixed Type ACB with Manual Closing Mechanism of 50 KA Short Circuit Rating with Both Adjustable Thermal O/L and Magnetic S/C Protection as incomer to the Raising Main including interconnection to the Raising Main with Aluminium bus bars and necessary cable end box. | 2 | Each | | | | | |
| | <u>Metering</u> | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| 04.06.00 | Supply,Erection,Testing and Commissioning of 1600A Aluminium Flexible expansion joints (jointing portion to be tinned) at the rising main side with required Standard Accessories etc., complete as required.(1 set = R,Y,B& N) | 26 | Set | | | | | |
| 04.07.00 | Supply,erection, testing and commissioning of Tap off Boxes of the following rating on the Raising Main including interconnection to the Raising Main. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 04.07.01 | 400 A Tap off box with 400 A TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 KA Short Circuit Rating with both adjustable Thermal O/L and Magnetic S/C Protection with necessary interconnections with solid Aluminium bus of required capacity as per specification & MCCB should have dedicated potential free contacts (ON/OFF) & TRIP status to monitor mentioned status from BMS system | 27 | Each | | | | | |
| 04.07.02 | 320 A Tap off box with 320 A TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 KA Short Circuit Rating with both adjustable Thermal O/L and Magnetic S/C Protection with necessary interconnections with solid Aluminium bus of required capacity as per specification & MCCB should have dedicated potential free contacts (ON/OFF) & TRIP status to monitor mentioned status from BMS system | 26 | Each | | | | | |
| 04.07.03 | 200 A Tap off box with 200 A TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 KA Short Circuit Rating with both adjustable Thermal O/L and Magnetic S/C Protection with necessary interconnections with solid Aluminium bus of required capacity as per specification & MCCB should have dedicated potential free contacts (ON/OFF) & TRIP status to monitor mentioned status from BMS system | 2 | Each | | | | | |
| 04.07.04 | 125 A Tap off box with 125 A TP&N Fixed Type MCCB with Manual Closing Mechanism of 25 KA Short Circuit Rating with both adjustable Thermal O/L and Magnetic S/C Protection with necessary interconnections with solid Aluminium bus of required capacity as per specification & MCCB should have dedicated potential free contacts (ON/OFF) & TRIP status to monitor mentioned status from BMS system | 26 | Each | | | | | |
| | Total for Sub Head No: IV | | | | | | | |
| 05.00.00 | Sub Head No: V - DISTRIBUTION BOARDS | | | | | | | |
| | LIGHTING DISTRIBUTION BOARD | | | | | | | |
| 05.01.00 | GF LDB-1 | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 12 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 36 Nos 6 A SP MCB | 1 | Each | | | | | |
| 05.02.00 | TYP.FLOOR (1 TO 12F) LDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 32 A, 4P MCB and 3 Nos 25 A DP 30mA ELCB Outgoing : 12 Nos 6 A SP MCB | 12 | Each | | | | | |
| 05.03.00 | 13TH FLOOR LDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 6 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 32 A, 4P MCB and 3 Nos 25 A DP 30mA ELCB Outgoing : 18 Nos 6 A/20A SP MCB | 1 | Each | | | | | |
| 05.04.00 | TERRACE FLOOR LDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 8 WAY SP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 20 A DP MCB Outgoing : 6 Nos 6/10 A SP MCB | 1 | Each | | | | | |
| 05.05.00 | TERRACE FLOOR LPDB-LIFT | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 32 A, 4P MCB and 3 Nos 25 A DP 30mA ELCB Outgoing : 12 Nos 6/10 A SP MCB | 1 | Each | | | | | |
| 05.06.00 | UTILITY LDB - 1 & 2 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 32 A, 4P MCB and 3 Nos 25 A DP 30mA ELCB Outgoing : 12 Nos 6 A SP MCB | 2 | Each | | | | | |
| 05.07.00 | UTILITY SPN LDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 8 WAY SP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 25 A DP MCB Outgoing : 6 Nos 6/10 A SP MCB | 1 | Each | | | | | |
| 05.08.00 | EXTERNAL LIGHTING DB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Vertical type 8 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 100 A, 25 KA 4P MCCB Outgoing : 8 Nos 25/32 A TP MCB | 1 | Each | | | | | |
| 05.09.00 | EXTERNAL SPN LDB | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 8 WAY SP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 25 A 4P 30mA ELCB Outgoing : 4 Nos 6/10 A SP MCB | 1 | Each | | | | | |
| 05.10.00 | MAIN ELDB-Ground Floor | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Vertical type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB Outgoing : 4 Nos 32 A TP MCB | 1 | Each | | | | | |
| 05.11.00 | GF ELDB-1 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 6 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 32 A, 4P MCB and 3 Nos 25 A DP 30mA ELCB Outgoing : 18 Nos 6 A SP MCB | 1 | Each | | | | | |
| 05.12.00 | 1F to 13F ELDB-3 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 6 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 32 A, 4P MCB and 3 Nos 25 A DP 30mA ELCB Outgoing : 18 Nos 10 A SP MCB | 1 | Each | | | | | |
| 05.13.00 | TYP FLOOR ELDB | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY SP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 10 A DP MCB Outgoing : 4 Nos 6 A SP MCB | 13 | Each | | | | | |
| 05.14.00 | UTILITY ELDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 8 WAY SP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 20 A DP MCB Outgoing : 6 Nos 6 A SP MCB | 1 | Each | | | | | |
| 05.15.00 | GF PDB-1 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 6 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 18 Nos 10/20 A SP MCB | 1 | Each | | | | | |
| 05.16.00 | TYP.FLOOR (1 TO 12F) PDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 12 Nos 16/20 A SP MCB | 12 | Each | | | | | |
| 05.17.00 | 13TH FLOOR PDB | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 6 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 18 Nos 10/20 A SP MCB | 1 | Each | | | | | |
| 05.18.00 | UTILITY PDB-1 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 12 Nos 10/16/20 A SP MCB | 1 | Each | | | | | |
| 05.19.00 | UTILITY PDB-2 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Vertical type 8 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB Outgoing : 8 Nos 25/32 A TP MCB | 1 | Each | | | | | |
| 05.20.00 | UPSDB-1-GF | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 8 WAY TP & N MCB Distribution Board with 'D' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, TP+2N MCB and 3 Nos 63 A DP 100mA ELCB Outgoing : 24 Nos 10/16/20 A SP MCB | 1 | Each | | | | | |
| 05.21.00 | UPSDB-2 FOR 1ST FL. TO 13TH FL. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'D' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, TP+2N MCB and 3 Nos 40 A DP 100mA ELCB Outgoing : 12 Nos 10/16/20 A SP MCB | 1 | Each | | | | | |
| 05.22.00 | AHU DB-1 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Vertical type 6 WAY TP & N MCCB Distribution Board with MCCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, TPN MCCB Outgoing : 18 Nos 6 A SPN MCB (D-Curve) | 1 | Each | | | | | |
| | | | | | | | | |
| 05.23.00 | Supplying, fixing and testing and commissioning of MCCB /MCB/Isolator in a sheet steel enclosure in surface on angle iron / flat iron frame work made of 35 x35x 5 mm angle and 35 x 5 mm flat or in recess including interconnection,painting etc as required (The enclosure size shall be suitable for receiving incoming and out going cable directly) | | | | | | | |
| | MCCB/SFU/MCB/I SOLATOR | | | | | | | |
| 05.23.01 | Supply,erection,testing and commissioning of 63A 4P MCB ISOLATOR switch suitable interconnections for cable termination the panel need to be modified as per site conditions.(Inverter) | 2 | NOS | | | | | |
| 05.23.02 | Supply,erection,testing and commissioning of 10A DP MCB 'D' Curve suitable interconnections for cable termination the panel need to be modified as per site conditions.(Ups socket) | 13 | NOS | | | | | |
| 05.23.03 | Supply,erection,testing and commissioning of 20A DP MCB switch suitable interconnections for cable termination the panel need to be modified as per site conditions.(Inverter) | 2 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 05.23.04 | 63 A TP&N Fixed Type MCCB of 16 kA rating with Thermal and Magnetic Short Circuit Protection | 1 | Each | | | | | |
| 05.23.05 | 63 A TP&2N Fixed Type MCCB of 16 kA rating with Thermal and Magnetic Short Circuit Protection | 1 | Each | | | | | |
| 05.23.06 | 250 A TP&N Fixed Type MCCB of 25 kA rating with Thermal and Magnetic Short Circuit Protection | QRO | Each | | | | | |
| 05.23.07 | 125A TP&N Fixed Type MCCB of 25 kA rating with Thermal and Magnetic Short Circuit Protection | QRO | Each | | | | | |
| | | | | | | | | |
| 05.24.00 | Design , Supply, installation ,testing and Commissioning of Starter panels comprising of the following. | 4 | Each | | | | | |
| | 1No. 16 Amps 4P Type MCCB Frame size ,with MCCB Rating as per type-II coordination | | | | | | | |
| | 1No. DOL Starter suitable for upto 5.5 KW with auxiliary contacts. | | | | | | | |
| | 1No. Overload relay. | | | | | | | |
| | 1No. Single phase preventer | | | | | | | |
| | 1 Set of ON/OFF Indication lamp (LED type) | | | | | | | |
| | 1No. Local/Remote selector switch and 1set of Start Stop and Reset push buttons. | | | | | | | |
| | 2 Sets of NO/NC Spare contacts to connect the BMS system. | | | | | | | |
| | All above accessories shall be fabricated with suitable powder coated MS enclosure with necessary interconnections , wall mounting frames, painting ,etc., | | | | | | | |
| | | | | | | | | |
| 05.25.00 | Supply, fixing , testing and commissioning of the Lockable type ON/OFF push button with necessary fixing accessories as required. | QRO | Each | | | | | |
| | | | | | | | | |
| 05.26.00 | UPS/I NVERTER | | | | | | | |
| | | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 05.26.01 | Supply and Erection of 30 KVA UPS Systems with 80% Efficiency with 3-phase input and Three phase output. Maintenance free batteries suitable for backup system should have Half an hour continuous rating. The scope includes providing necessary battery stand, interconnecting cables from UPS battery. The scope also includes providing necessary by-pass arrangement and all other requirements. The capacity of the battery shall be of 35000VAH or 240V DC with a minimum of 145 ampere hour and as per specification and data sheet Vol .III. with suitable digital type Multi function meter with communication port RS 485 having MODBUS Protocol & UPS should have at least one spare potential free contacts to integrate with BMS system to know the status like ON, OFF, TRIP, etc. (Lab building) | 1 | Each | | | | | |
| | The vendor shall submit dimensional GA drawing of complete UPS system, battery rack with batteries, Service bypass Panel and Battery bank calculations along with offer. | | | | | | | |
| 05.26.02 | Supply and Erection of 15 KVA INVERTER Systems with 3-phase input and Three phase output. Maintenance free batteries suitable for backup system should have Half an hour continuous rating. The scope includes providing necessary battery stand, interconnecting cables from INVERTER battery. The scope also includes providing necessary by-pass arrangement and all other requirements. The capacity of the battery shall be of 240V DC with a minimum of 26 ampere hour and as per specification. (Lab building) | 1 | Each | | | | | |
| 05.26.03 | Supply and Erection of 2.5 KVA INVERTER Systems with 1-phase input and single phase output. Maintenance free batteries suitable for backup system should have Half an hour continuous rating. The scope includes providing necessary battery stand, interconnecting cables from INVERTER battery. The scope also includes providing necessary by-pass arrangement and all other requirements. The capacity of the battery shall be of 240V DC with a minimum of 18 ampere hour and as per specification. (utility) | 1 | Each | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| | The vendor shall submit dimensional GA drawing of complete INVERTER system, battery rack with batteries, Service bypass Panel and Battery bank calculations along with offer. | | | | | | | |
| | Total for Sub Head No: V | | | | | | | |
| 06.00.00 | Sub Head No: VI - LIGHT FITTINGS | | | | | | | |
| 06.01.00 | LIGHT FIXTURE (MAIN BUILDING INTERNAL) | | | | | | | |
| 06.01.01 | Supplying, Erecting, connecting & commissioning of surface mounted down light fixture 12 Watts LED. (BAJAJ-BGSLO SLEEK 12W WH or equivalent CGL/Philips model no.) and with necessary clamps, screws etc. | QRO | NOS | | | | | |
| 06.01.02 | Supplying, Erecting, connecting & commissioning of Recessed mounted downlight fixture with 12 Watts LED. (BAJAJ-BZSLO 12W WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 350 | NOS | | | | | |
| 06.01.03 | Supplying, Erecting, connecting & commissioning of surface mounted down light fixture 18 Watts LED. (BAJAJ-BGSLO SLEEK 18W WH or equivalent CGL/Philips model no.) and with necessary clamps, screws etc. | QRO | NOS | | | | | |
| 06.01.04 | Supplying, Erecting, connecting & commissioning of Recessed sleek mounted downlight fixture with 18 Watts LED. (BAJAJ-BGSLO SLEEK 18W RD or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 143 | NOS | | | | | |
| 06.01.05 | Supplying, Erecting, connecting & commissioning of Recessed mounted high power downlight fixture with Surface housing, 32 Watts LED. (BAJAJ-BCDLR 32W WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 55 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 06.01.06 | Supplying, Erecting, connecting & commissioning of Recessed mounted high power downlight fixture with Surface housing, 32 Watts LED. (BAJAJ-BCDLR 32W WH + BCDLS 32W Housing-1 or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 135 | NOS | | | | | |
| 06.01.07 | Supplying, Erecting, connecting & commissioning of Spot light fixture with 6 Watts LED. (BAJAJ-BRDCL 6W WW or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 37 | NOS | | | | | |
| 06.01.08 | Supplying, Erecting, connecting & commissioning of False ceiling mounted square light fixture with 36 Watts LED. (BAJAJ-BCTBLR 36W ATN WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | QRO | NOS | | | | | |
| 06.01.09 | Supplying, Erecting, connecting & commissioning of Clean room light fixture with 36 Watts LED. (BAJAJ-BPRF 36W WH LED or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | QRO | NOS | | | | | |
| 06.01.10 | Supplying, Erecting, connecting & commissioning of Mirror light fixture with 10 Watts LED. (BAJAJ-BCLSB010W WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | QRO | NOS | | | | | |
| 06.01.11 | Supplying, Erecting, connecting & commissioning of Surface mounted T5 light fixture with 2x28 Watts FTL with aluminium reflector. (BAJAJ-BTIR228 2X28W T5 or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 110 | NOS | | | | | |
| 06.01.12 | Supplying, Erecting, connecting & commissioning of Recess mounted connect sereies light fixture with 20 Watts LED. (BAJAJ-BRTX 20W LED WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | QRO | NOS | | | | | |
| 06.01.13 | Supplying, Erecting, connecting & commissioning of Strip LED 5 Watts. (BAJAJ-BCFL 300 25WIP20 WW or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 18 | M | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 06.01.14 | Supplying, Erecting, connecting & commissioning of 5 Watts LED strip driver. | 4 | NOS | | | | | |
| 06.01.15 | Supplying, Erecting, connecting & commissioning of Cove Light Fixture 18 Watts. (BAJAJ-BCLSB18 or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 54 | NOS | | | | | |
| 06.01.16 | Supplying, Erecting, connecting & commissioning of Surface mounted Bulk head fitting with 1x9 Watts CFL.(BAJAJ-BJBE 19 or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 95 | NOS | | | | | |
| 06.01.17 | Supplying, Erecting, connecting & commissioning of Under water light fixture with 1x3 Watts LED IP68. | 9 | NOS | | | | | |
| 06.01.18 | Supplying, Erecting, connecting & commissioning of Pathway light fixture with 1x3wWatts LED, IP 67. with necessary clamps, screws etc. | 3 | NOS | | | | | |
| 06.01.19 | Supplying, Erecting, connecting & commissioning of up down light fixture with 1x6Watts LED, IP 67 with necessary clamps, screws etc. | 4 | NOS | | | | | |
| 06.01.20 | Supplying, Erecting, connecting & commissioning of Bollard light fixture 9 Watts LED, IP 65 (BAJAJ-BGBOL 605 9W LED OR EQ. or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 6 | NOS | | | | | |
| | | | | | | | | |
| 06.02.00 | LIGHT FIXTURE (UTILITY INTERNAL) | | | | | | | |
| 06.02.01 | Supplying, Erecting, connecting & commissioning of surface mounted down light fixture 12 Watts LED. (BAJAJ-BGSLO SLEEK 12W WH or equivalent CGL/Philips model no.) and with necessary clamps, screws etc. | 1 | NOS | | | | | |
| 06.02.02 | Supplying, Erecting, connecting & commissioning of surface mounted down light fixture 18 Watts LED. (BAJAJ-BGSLO SLEEK 18W WH or equivalent CGL/Philips model no.) and with necessary clamps, screws etc. | 8 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 06.02.03 | Supplying, Erecting, connecting & commissioning of Surface mounted T5 light fixture with 1x28 Watts FTL with aluminium reflector. (BAJAJ-BTIR128 1X28W T5 or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 3 | NOS | | | | | |
| 06.02.04 | Supplying, Erecting, connecting & commissioning of Surface mounted T5 light fixture with 2x28 Watts FTL with aluminium reflector. (BAJAJ-BTIR228 2X28W T5 or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 91 | NOS | | | | | |
| 06.02.05 | Supplying, Erecting, connecting & commissioning of Surface mounted Bulk head fitting with 1x9 Watts CFL. (BAJAJ-BJBE 19 or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 3 | NOS | | | | | |
| 06.02.06 | Supplying, Erecting, connecting & commissioning of Medium bay light fixture with 80 Watts LED. (BAJAJ-BGPPN 80W LED or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 10 | NOS | | | | | |
| 06.02.07 | Supplying, Erecting, connecting & commissioning of High bay light fixture with 150 Watts LED. (BAJAJ-BGHB 150W LED or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 5 | NOS | | | | | |
| 06.02.08 | Supplying, Erecting, connecting & commissioning of Ceiling fan 1200 mm sweep with down rod including painting as required complete. (Make: As per approved List.) | 11 | NOS | | | | | |
| 06.03.00 | LIGHT FIXTURE (UTILITY EXTERNAL) | | | | | | | |
| 06.03.01 | Supplying, Erecting, connecting & commissioning of Flood light fixture with 30 Watts LED. (BAJAJ-BJFL 30W LED or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 1 | NOS | | | | | |
| 06.03.02 | Supplying, Erecting, connecting & commissioning of Well Glass light fixture with 35 Watts LED. (BAJAJ-BIWICP 35W or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 15 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 06.03.03 | Supplying, Erecting, connecting & commissioning of 20Watts LED Street light fixture with constant current controller (BAJAJ-BCLST 20W LED or equivalent CGL/Philips model no.) & fixed on the Wall with necessary clamps, screws etc. | 6 | NOS | | | | | |
| 06.04.00 | LIGHT FIXTURE (EXTERNAL RMU, SECURITY ROOM) | | | | | | | |
| 06.04.01 | Supplying, Erecting, connecting & commissioning of bollard light fixture | QRO | NOS | | | | | |
| 06.04.02 | Supplying, Erecting, connecting & commissioning of Gate light fixture | QRO | NOS | | | | | |
| 06.04.03 | Supplying, Erecting, connecting & commissioning of Surface mounted T5 light fixture with 1x28 Watts FTL with aluminium reflector. (BAJAJ-BTIR128 1X28W T5 or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 1 | NOS | | | | | |
| 06.04.04 | Supplying, Erecting, connecting & commissioning of Surface mounted T5 light fixture with 2x28 Watts FTL with aluminium reflector. (BAJAJ-BTIR228 2X28W T5 or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 10 | NOS | | | | | |
| 06.04.05 | Supplying, Erecting, connecting & commissioning of Ceiling fan 1200 mm sweep with down rod including painting as required complete. (Make: As per approved List.) | 1 | NOS | | | | | |
| | Note: All the FALSE Ceiling mount fixture model no may be changed (if required) at that time finalization false ceiling design. All light Fixture shall be Approved by Client/Consultant before procurement. | | | | | | | |
| 06.05.00 | Aviation lighting systems located in terrace on Pole mounted or tower mounted Aviation Warning lighting fixture suitable for LED single and double doom options with IP54 rated. | 2 | Nos | | | | | |
| | Total for Sub Head No: VI | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 07.00.00 | Sub Head No: VII - WIRING | | | | | | | |
| 07.01.00 | POWER WIRING (MAIN BUILDING INTERNAL) | | | | | | | |
| | Note: All conduits concealed in ceiling/wall, Surface conduit with necessary clamps, screws , etc. shall be fixed. | | | | | | | |
| | [PDB to First power Sockets, First power Sockets to additional power socket] - Ground floor | | | | | | | |
| | Wiring for circuit /power / sub main etc with following sizes of FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in Existing MS Conduit in recess/surface including making connection etc., as per specification. | | | | | | | |
| 07.01.01 | 2 x 2.5 sqmm + 1 x 1.5 sqmm (E) | 590 | M | | | | | |
| 07.01.02 | 2 x 4 sqmm + 1 x 2.5 sqmm (E) | 152 | M | | | | | |
| 07.02.00 | Supplying and fixing of following sizes of 14swg MS conduit along with the accessories in surface including cutting the wall and making good the same in case of recessed conduit as required: | | | | | | | |
| 07.02.01 | 20 mm. | 245 | M | | | | | |
| 07.02.02 | 25 mm. | 46 | M | | | | | |
| 07.02.03 | 32 mm. | RO | M | | | | | |
| 07.03.00 | Supplying, Erecting, connecting & commissioning a 2Runs of 2.5Sq.mm+1Runs of 1.5Sq.mm. (earth) FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in 2.0 mm thick heavy duty PVC Conduits laid in Concealed on ceiling [PDB TO EX.fan SB, PDB to First power Sockets, First power Sockets to additional power socket]- Typical floor | 880 | M | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|------|------|--------|--------------|----------|----------------|--------------|
| 07.04.00 | Supplying, Erecting, connecting & commissioning a 2Runs of 4.0Sq.mm+1Runs of 2.5Sq.mm. (earth) FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in 2.0 mm thick heavy duty PVC Conduits laid in Concealed on ceiling [PDB to First power Sockets, First power Sockets to additional power socket]-Typical floor | 1758 | M | | | | | |
| 07.05.00 | Supplying, Wiring, Connecting and commissioning 6A socket outlets using 3x1.5 sq.mm FRLS PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) using 2.0mm thick MS conduit and conduit accessories fixing surface wiring in slab, wall drops only concealed with pvc conduit and fixing Galvanised / Cadmium plated MS switch box, 6A Single Way Modular Switch, modular switch plate and making necessary connections etc., as per specification.(Exhaust fan point) (length upto 9 meters)-Ground & Typical floor | 54 | NOS | | | | | |
| 07.06.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 6 A one way modular switch, including making connections as per specifications.(Eb room-1-Exhaust fan point)-Ground & Typical, Terrace floor | 15 | NOS | | | | | |
| 07.07.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 6 A socket outlet, including making connections as per specifications.(Eb room-1-Exhaust fan point)-Ground & Typical, Terrace floor | 15 | NOS | | | | | |
| 07.08.00 | Supplying and Fixing for Wall mouted Exhaust fan in EB room-1-Ground & Typical, Terrace floor | 15 | NOS | | | | | |
| 07.09.00 | [UPSPDB to First ups Sockets, First ups Sockets to additional ups socket] - Ground floor | | | | | | | |
| 07.10.00 | Wiring for circuit /ups power / sub main etc with following sizes of FRLS PVC Insulated stranded copper conductor flexible cables (one each for phase, neutral and earth) for continuous earthing in Existing MS/PVC Conduit in recess/surface, partly in conduits on wall and floor conduiting up to first work station and looping to next four work stations.including making connection etc. | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 07.11.00 | Wiring for circuit /power / sub main etc with following sizes of FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in Existing MS Conduit in recess/surface including making connection etc., as per specification. | | | | | | | |
| 07.11.01 | 2 x2.5 sqmm + 1 x 1.5 sqmm (E) | 145 | M | | | | | |
| 07.11.02 | 2 x4.0 sqmm + 1 x 2.5 sqmm (E) | 150 | M | | | | | |
| 07.12.00 | Supplying and fixing of following sizes of MS conduit along with the accessories in surface including cutting the wall and making good the same in case of recessed conduit as required: | | | | | | | |
| 07.12.01 | 20 mm. | 270 | M | | | | | |
| 07.12.02 | 25 mm. | R0 | M | | | | | |
| 07.12.03 | 32 mm. | R0 | M | | | | | |
| 07.13.00 | [UPSPDB to First ups Sockets, First ups Sockets to additional ups socket] - Typical floor | | | | | | | |
| 07.14.00 | Wiring for circuit /power / sub main etc with following sizes of FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in Existing MS Conduit in recess/surface including making connection etc., as per specification. | | | | | | | |
| 07.14.01 | 2 x2.5 sqmm + 1 x 1.5 sqmm (E) | ### | M | | | | | |
| 07.14.02 | 2 x4.0 sqmm + 1 x 2.5 sqmm (E) | R0 | M | | | | | |
| 07.15.00 | Supplying and fixing of following sizes of MS conduit along with the accessories in surface including cutting the wall and making good the same in case of recessed conduit as required: | | | | | | | |
| 07.15.01 | 20 mm. | ### | M | | | | | |
| 07.15.02 | 25 mm. | R0 | M | | | | | |
| 07.15.03 | 32 mm. | R0 | M | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 07.16.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 6 A one way modular switch, 6 A 5 pin shuttered socket outlet on modular switch plate including making connections as per specifications. | 60 | NOS | | | | | |
| 07.17.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 16 A one way modular switch, 16 A 6 pin shuttered socket outlet on modular switch plate including making connections as per specifications. | 47 | NOS | | | | | |
| 07.18.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 16 A one way modular switch, 16 A 6 pin shuttered socket outlet on modular switch plate including making connections as per specifications. (For hand dryer) | 53 | NOS | | | | | |
| 07.19.00 | Supplying and Fixing set of 1x6A socket outlets controlled by 6A switch with back box and fixing arrangements- for ahu controller/ FA/PA systems(UPS) | 57 | NOS | | | | | |
| 07.20.00 | Supplying and Fixing set of 2x6A socket outlets controlled by 16A switch with back box and fixing arrangements- for work stations / client rooms room (UPS) | QRO | NOS | | | | | |
| 07.21.00 | Supplying and Fixing set of 3x6A socket outlets controlled by 16A switch with back box and fixing arrangements- for work stations / client rooms room (UPS) | 2 | NOS | | | | | |
| 07.22.00 | Supplying and Fixing set of 16A socket outlets controlled by 16A switch with back box and fixing arrangements- for work stations / client rooms room (UPS) | 1 | NOS | | | | | |
| 07.23.00 | Supplying and Fixing set of 25A socket outlets controlled by 20A switch with back box and fixing arrangements- for server rack (UPS) | 3 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|-------|--------|--------------|----------|----------------|--------------|
| 07.24.00 | Supplying and Fixing set of 32A,3phase+N+E Industrial welding socket outlets controlled by 32A MCB with back box and fixing arrangements - Outdoor type | 2 | NOS | | | | | |
| 07.25.00 | [UPS DB to Floor DP MCB] - Typical floor | | | | | | | |
| 07.25.01 | 2R 2.5 Sq.mm +1R 1.5Sq.mm FRLS cu wire with Ms conduit | 909 | Metre | | | | | |
| 07.26.00 | POWER WIRING (UTILITY BUILDING INTERNAL) | | | | | | | |
| | Note: All conduits concealed in ceiling/wall, Surface conduit with necessary clamps, screws , etc. shall be fixed. | | | | | | | |
| | [PDB to First power Sockets, First power Sockets to additional power socket] | | | | | | | |
| 07.27.00 | Wiring for circuit /power / sub main etc with following sizes of FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in Existing PVC Conduit in recess including making connection etc., as per specification. | | | | | | | |
| 07.27.01 | 2 x2.5 sqmm + 1 x 1.5 sqmm (E) | 70 | M | | | | | |
| 07.27.02 | 2 x 4 sqmm + 1 x 2.5 sqmm (E) | 75 | M | | | | | |
| 07.28.00 | Supplying and fixing of following sizes of PVC conduit alongwith the accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required: | | | | | | | |
| 07.28.01 | 25 mm. | 145 | Metre | | | | | |
| 07.29.00 | Supplying and Fixing set of 3x6A socket outlets controlled by 16A switch with back box and fixing arrangements- for work stations / client rooms room | 6 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|------|------|--------|--------------|----------|----------------|--------------|
| 07.30.00 | Supplying and Fixing 1 set of 25 A 3 pin shuttered socket outlet on modular switch plate including making connections as per specifications. | 6 | NOS | | | | | |
| 07.31.00 | Supplying and Fixing 1 set of 25 A SP mini trip on modular switch plate including making connections as per specifications. | 6 | NOS | | | | | |
| 07.32.00 | LIGHT POINT WIRING (MAIN BUILDING INTERNAL) | | | | | | | |
| 07.33.00 | Supplying, Erecting, connecting & commissioning a 2Runs of 2.5Sq.mm+1Runs of 1.5Sq.mm. (earth) FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing [LDB to Group controlled Light, SB to SB, ELDB to Group controlled Light, ELDB to SB] | 8271 | M | | | | | |
| 07.34.00 | Supplying, Erecting, connecting & commissioning of 20mm heavy duty PVC Conduits with accessories concealed in wall/Ceiling. [SB vertical conduit in wall , without false ceiling, as per lighting layout shown, etc...] | 100 | M | | | | | |
| 07.35.00 | Supplying, Erecting, connecting & commissioning of 20mm 14swg MS Conduits with junction box, long bend screw type opening GI saddle with accessories laid in Surface [with false ceiling, as per lighting layout shown, etc...] | 4442 | M | | | | | |
| 07.36.00 | Supplying, Wiring, Connecting and commissioning light points, fan points, 6A socket using 3x1.5 sq.mm FRLS PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) in 2.0mm thick PVC/MS conduit and conduit accessories (The cost includes MS/PVC conduit and its accessories)fixing surface/concealed wiring in slab, wall drops only concealed with pvc conduit and fixing Galvanised / Cadmium plated MS switch box, 6A Single Way Modular Switch, modular switch plate and making necessary connections etc., as per specification. | | | | | | | |
| 07.36.01 | One Light Controlled by one way Switch through pvc conduit | 94 | PTS. | | | | | |
| 07.36.02 | One Light Controlled by one way Switch through ms conduit | 87 | PTS. | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 07.36.03 | Two Light Controlled by one way Switch through pvc conduit | 17 | PTS. | | | | | |
| 07.36.04 | Two Light Controlled by one way Switch through ms conduit | 55 | PTS. | | | | | |
| 07.36.05 | Three Light Controlled by one way Switch through pvc conduit. | 13 | PTS. | | | | | |
| 07.36.06 | Three Light Controlled by one way Switch through ms conduit. | 57 | PTS. | | | | | |
| 07.36.07 | Four Light Controlled by one way Switch through pvc conduit. | QRO | PTS. | | | | | |
| 07.36.08 | Four Light Controlled by one way Switch through ms conduit. | 4 | PTS. | | | | | |
| 07.36.09 | One Light Controlled by two way Switch. | QRO | PTS. | | | | | |
| 07.36.10 | Fan point controlled by 6A one way switch and regulator through pvc conduit. The maximum length will be 6 Mts. | QRO | PTS. | | | | | |
| 07.36.11 | Fan point controlled by 6A one way switch and regulator through ms conduit. The maximum length will be 6 Mts. | QRO | PTS. | | | | | |
| 07.36.12 | Fan point controlled by 6A one way switch and regulator through pvc conduit. The maximum length will be 10 Mts. | QRO | PTS. | | | | | |
| 07.36.13 | Fan point controlled by 6A one way switch and regulator through ms conduit. The maximum length will be 10 Mts. | QRO | PTS. | | | | | |
| 07.37.00 | LIGHT POINT WIRING (MAIN BUILDING EXTERNAL) | | | | | | | |
| | Supplying, Erecting, connecting & commissioning a 3Cx2.5Sq.mm. Cu. Unarmoured flex cables in existing PVC/MS conduit | 353 | M | | | | | |
| 07.38.00 | LIFT/ELEVATOR WELL & CARGO WIRING | | | | | | | |
| 07.38.01 | Supplying, Erecting, connecting & commissioning a 3Runs of 2.5Sq.mm. PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) for continuous earthing in 2.0 mm thick MS Conduits laid in Surface on wall/Ceiling for light | 255 | M | | | | | |
| 07.38.02 | Supplying, Erecting, connecting & commissioning a 3Runs of 2.5Sq.mm. PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) for continuous earthing in 2.0 mm thick MS Conduits laid in Surface on wall/Ceiling for socket | 255 | M | | | | | |
| 07.39.00 | LIGHT POINT WIRING (UTILITY BUILDING INTERNAL) | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 07.40.00 | Supplying, Erecting, connecting & commissioning a 2Runs of 2.5Sq.mm+1Runs of 1.5Sq.mm. (earth) FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing [LDB to Group controlled Light, SB to SB, ELDB to Group controlled Light, ELDB to SB] | 236 | M | | | | | |
| 07.41.00 | Supplying, Erecting, connecting & commissioning of 20mm heavy duty PVC Conduits with accessories concealed in wall/Ceiling. | 135 | M | | | | | |
| 07.42.00 | Supplying, Erecting, connecting & commissioning of 20mm 14swg MS Conduits with junction box, long bend screw type opening GI saddle with accessories laid in Surface [with false ceiling, as per lighting layout shown, etc...] | 68 | M | | | | | |
| 07.43.00 | Supplying, Wiring, Connecting and commissioning light points, fan points, 6A socket using 3x1.5 sq.mm FRLS PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) in 2.0mm thick PVC/MS conduit and conduit accessories (The cost includes MS/PVC conduit and its accessories) fixing surface/concealed wiring in slab, wall drops only concealed with pvc conduit and fixing Galvanised / Cadmium plated MS switch box, 6A Single Way Modular Switch, modular switch plate and making necessary connections etc., as per specification. | | | | | | | |
| 07.43.01 | One Light Controlled by one way Switch through pvc conduit.The maximum length will be 6 Mts. | 28 | PTS. | | | | | |
| 07.43.02 | One Light Controlled by one way Switch through ms conduit. The maximum length will be 12 Mts. | 1 | PTS. | | | | | |
| 07.43.03 | Two Light Controlled by one way Switch through pvc conduit. The maximum length will be 25 Mts. | 12 | PTS. | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 07.43.04 | Two Light Controlled by one way Switch through ms conduit. The maximum length will be 27 Mts. | 5 | PTS. | | | | | |
| 07.43.05 | Three Light Controlled by one way Switch through pvc conduit. The maximum length will be 22 Mts. | 14 | PTS. | | | | | |
| 07.43.06 | Three Light Controlled by one way Switch through ms conduit. The maximum length will be 28 Mts. | 6 | PTS. | | | | | |
| 07.43.07 | Four Light Controlled by one way Switch through pvc conduit.. The maximum length will be 39 Mts. | 1 | PTS. | | | | | |
| 07.43.08 | Fan point controlled by 6A one way switch and regulator through pvc conduit. The maximum length will be 6 Mts. | 6 | PTS. | | | | | |
| 07.43.09 | Fan point controlled by 6A one way switch and regulator through pvc conduit. The maximum length will be 9 Mts. | QRO | PTS. | | | | | |
| | | | | | | | | |
| 07.44.00 | LIGHT POLE & CABLE (UTILITY BUILDING EXTERNAL) | | | | | | | |
| 07.45.00 | Supply & Installation of 3mtr height J-Type pole with suitable for Industrial Well Glass Light Fixture | 15 | NOS | | | | | |
| 07.46.00 | Supply & Installation of Weather proof Junction box with 2.5 Sq.mm. terminal connector | 15 | NOS | | | | | |
| 07.47.00 | Supplying, Erecting, connecting & commissioning a 3Cx2.5Sq.mm. Cu. Unarmoured flex cables in existing Light pole | 34 | Metre | | | | | |
| 07.48.00 | Supplying, Erecting, connecting & commissioning a 3Cx2.5Sq.mm. Cu. armoured cables | 532 | M | | | | | |
| 07.49.00 | Supply and Installation of cable end termination with Single brass compression gland and Aluminium lugs for the following sizes of PVC Insulated XLPE Aluminium armoured conductor cable of 1.1KV grade complete as required.. | | | | | | | |
| | 3 x 2.5 sqmm | 32 | Set | | | | | |
| | | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 07.50.00 | LIGHT POINT WIRING (EXTERNAL RMU, SECURITY ROOM) | | | | | | | |
| 07.51.00 | Supplying, Erecting, connecting & commissioning a 2Runs of 2.5Sq.mm+1Runs of 1.5Sq.mm. (earth) FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing [LDB to Group controlled Light, SB to SB, ELDB to Group controlled Light, ELDB to SB] | 44 | M | | | | | |
| 07.52.00 | Supplying, Erecting, connecting & commissioning of 20mm heavy duty PVC Conduits with accessories concealed in wall/Ceiling. | 10 | M | | | | | |
| 07.53.00 | Supplying, Wiring, Connecting and commissioning light points, fan points, 6A socket using 3x1.5 sq.mm FRLS PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) using 2.0mm thick PVC/MS conduit and conduit accessories fixing surface/concealed wiring in slab, wall drops only concealed with pvc conduit and fixing Galvanised / Cadmium plated MS switch box, 6A Single Way Modular Switch, modular switch plate and making necessary connections etc., as per specification. | | | | | | | |
| 07.53.01 | One Light Controlled by one way Switch through pvc conduit | 11 | PTS. | | | | | |
| 07.53.02 | Fan point controlled by 6A one way switch and regulator through pvc conduit. The maximum length will be 6 Mts. | 1 | PTS. | | | | | |
| | | | | | | | | |
| | Total for Sub Head No: VII | | | | | | | |
| 08.00.00 | Sub Head No: VIII - Cabling | | | | | | | |
| 08.01.00 | Power Cables | | | | | | | |
| | Supply and Laying of XLPE insulated and PVC sheathed, aluminium conductor, 1.1 KV grade armoured, MV cable of the following sizes as required, generally conforming to IS: 7098/Part-I/1988 | | | | | | | |
| 08.01.01 | 3.5C X 400 sqmm (Laid in Excavated Trench) | ### | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.01.02 | 3.5C X 400 sqmm (Laid in Cable tray and Surface) | 899 | Metre | | | | | |
| 08.01.03 | 3.5C X 300 sqmm (Laid in Excavated Trench) | 603 | Metre | | | | | |
| 08.01.04 | 3.5C X 300 sqmm (Laid in Cable tray and Surface) | 352 | Metre | | | | | |
| 08.01.05 | 3.5C X 240 sqmm | 247 | Metre | | | | | |
| 08.01.06 | 3.5C X 185 sqmm (Laid in Excavated Trench) | 914 | Metre | | | | | |
| 08.01.07 | 3.5C X 185 sqmm (Laid in Cable tray and Surface) | 200 | Metre | | | | | |
| 08.01.08 | 3.5C X 150 sqmm | 332 | Metre | | | | | |
| 08.01.09 | 3.5C X 120 sqmm | QRO | Metre | | | | | |
| 08.01.10 | 3.5C X 95 sqmm | QRO | Metre | | | | | |
| 08.01.11 | 3.5C X 70 sqmm | 790 | Metre | | | | | |
| 08.01.12 | 3.5C X 50 sqmm | 50 | Metre | | | | | |
| 08.01.13 | 3.5C X 35 sqmm (Laid in Excavated Trench) | 332 | Metre | | | | | |
| 08.01.14 | 4C x 25 sqmm | 183 | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.01.15 | 4C x 16 sqmm | 681 | Metre | | | | | |
| 08.01.16 | 4C x 10 sqmm | 815 | Metre | | | | | |
| 08.01.17 | 4C x 6 sqmm | QRO | Metre | | | | | |
| 08.01.18 | 4C x 4 sqmm | QRO | Metre | | | | | |
| 08.02.00 | Supply and Laying of XLPE insulated and PVC sheathed, Copper conductor, 1.1 KV grade armoured, MV cable of the following sizes as required, generally conforming to IS: 7098/Part-I/1988 | | | | | | | |
| 08.02.01 | 4C X 70 sqmm | QRO | Metre | | | | | |
| 08.02.02 | 4C x 25 sqmm | 127 | Metre | | | | | |
| 08.02.03 | 4C x 16 sqmm | 136 | Metre | | | | | |
| 08.02.04 | 4C x 10 sqmm | 393 | Metre | | | | | |
| 08.02.05 | 4C x 6 sqmm | 87 | Metre | | | | | |
| 08.02.06 | 4C x 4 sqmm | ### | Metre | | | | | |
| 08.02.07 | 4C x 2.5 sqmm | 309 | Metre | | | | | |
| 08.02.08 | 16C x 2.5 sqmm | 54 | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 08.03.00 | Supply and Installation of cable end termination with Single brass compression gland and Aluminium lugs for the following sizes of PVC Insulated XLPE Aluminium armoured conductor cable of 1.1KV grade complete as required.. | | | | | | | |
| 08.03.01 | 3.5C X 400 sqmm | 52 | Set | | | | | |
| 08.03.02 | 3.5C X 300 sqmm | 12 | Set | | | | | |
| 08.03.03 | 3.5C X 240 sqmm | 16 | Set | | | | | |
| 08.03.04 | 3.5C X 185 sqmm | 14 | Set | | | | | |
| 08.03.05 | 3.5C X 150 sqmm | 104 | Set | | | | | |
| 08.03.06 | 3.5C X 120 sqmm | QRO | Set | | | | | |
| 08.03.07 | 3.5C X 95 sqmm | QRO | Set | | | | | |
| 08.03.08 | 3.5C X 70 sqmm | 60 | Set | | | | | |
| 08.03.09 | 3.5C X 50 sqmm | 4 | Set | | | | | |
| 08.03.10 | 3.5C X 35 sqmm | 2 | Set | | | | | |
| 08.03.11 | 4C x 25 sqmm | 10 | Set | | | | | |
| 08.03.12 | 4C x 16 sqmm | 46 | Set | | | | | |
| 08.03.13 | 4C x 10 sqmm | 62 | Set | | | | | |
| 08.03.14 | 4 x 6 sqmm | QRO | Set | | | | | |
| 08.03.15 | 4 x 4 sqmm | QRO | Set | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.04.00 | Supply and Installation of cable end termination with Single brass compression gland and Copper lugs for the following sizes of PVC Insulated XLPE Copper armoured conductor cable of 1.1KV grade complete as required.. | | | | | | | |
| 08.04.01 | 4C X 70 sqmm | QRO | Set | | | | | |
| 08.04.02 | 4C x 25 sqmm | 8 | Set | | | | | |
| 08.04.03 | 4C x 16 sqmm | 10 | Set | | | | | |
| 08.04.04 | 4C x 10 sqmm | 16 | Set | | | | | |
| 08.04.05 | 4C x 6 sqmm | 6 | Set | | | | | |
| 08.04.06 | 4C x 4 sqmm | 120 | Set | | | | | |
| 08.04.07 | 4C x 2.5 sqmm | 22 | Set | | | | | |
| 08.04.08 | 16C x 2.5 sqmm | 4 | Set | | | | | |
| 08.05.00 | UPS Power Cables | | | | | | | |
| 08.06.00 | Supply and Laying of XLPE insulated and PVC sheathed, Copper conductor, 1.1 KV grade armoured, MV cable of the following sizes as required, generally conforming to IS: 7098/Part-I/1988 | | | | | | | |
| 08.06.01 | 3Rx1Cx25Sqmm + 2Rx1Cx25Sqmm + 1Rx1Cx16Sqmm PVC Cu Cable | 24 | Metre | | | | | |
| 08.06.02 | 3Rx1Cx16Sqmm + 2Rx1Cx16Sqmm + 1Rx1Cx10Sqmm PVC Cu Cable with Ms conduit | 21 | Metre | | | | | |
| 08.06.03 | 3Rx1Cx10Sqmm + 2Rx1Cx10Sqmm + 1Rx1Cx6Sqmm PVC Cu Cable with Ms conduit | 10 | Metre | | | | | |
| 08.06.04 | 3R 6 Sq.mm + 2RX 6 Sq.mm+1R 4 Sq.mm FRLS cu wire with Ms conduit | 44 | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.07.00 | Supply and Installation of cable end termination with Single brass compression gland and Copper lugs for the following sizes of PVC Insulated XLPE Copper armoured conductor cable of 1.1KV grade complete as required.. | | | | | | | |
| 08.07.01 | 3Rx1Cx25Sqmm + 2Rx1Cx25Sqmm + 1Rx1Cx16Sqmm PVC Cu Cable | 6 | Set | | | | | |
| 08.07.02 | 3Rx1Cx16Sqmm + 2Rx1Cx16Sqmm + 1Rx1Cx10Sqmm PVC Cu Cable with Ms conduit | 6 | Set | | | | | |
| 08.07.03 | 3Rx1Cx10Sqmm + 2Rx1Cx10Sqmm + 1Rx1Cx6Sqmm PVC Cu Cable with Ms conduit | 2 | Set | | | | | |
| 08.07.04 | 3R 6 Sq.mm + 2RX 6 Sq.mm + 1R 4 Sq.mm FRLS cu wire with Ms conduit | 2 | Set | | | | | |
| 08.08.00 | CABLE TRAYS | | | | | | | |
| | Supply, erection of following sizes GI ladder type cable rack system made out of sheet steel folded to required shape with adequate number of supports. (Cable tray support price is not required in this Items) | | | | | | | |
| | The cable rack shall have runners rugs of suitable size, horizontal elbow, vertical elbow 90 Deg. Up vertical elbow 90 Deg. Down, re-deep, coupler plates, materials. The cable racks shall be suspended from ceiling supported from side walls in columns etc. with adequate size supporting angles / channels with fastners, welding, anchor bolts, nuts etc. The rack shall have suitable cable clamping arrangements etc. | | | | | | | |
| 08.08.01 | 150 mm Width | 292 | Metre | | | | | |
| 08.08.02 | 300 mm Width | 997 | Metre | | | | | |
| 08.08.03 | 450 mm width | 45 | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.08.04 | 600 mm.width | 95 | Metre | | | | | |
| 08.08.05 | 750 mm.width | 42 | Metre | | | | | |
| 08.08.06 | 900 mm.width | 120 | Metre | | | | | |
| 08.08.07 | 1000 mm width | 53 | Metre | | | | | |
| 08.09.00 | PEDESTAL SUPPORT FOR CABLE ACCESS AT SERVICE CORRIDOR | | | | | | | |
| 08.09.01 | Supply and erection of M.S. Material for above mention 6mm chequered plate, steel structure painted with two coats of primer and two coats of enamel paint. | QRO | kgs | | | | | |
| 08.09.02 | Design, cutting, and fixing of 6 mm thick chequered plate with required MS angles for closing around the Panel & trench closing. It should be covered with neatly without any gap around the rising mains as per IE Regulation. The gap between Wall and the chequered plate shall be covered with insulating materials. | 46 | sqm | | | | | |
| 08.09.03 | Supply and erection of M.S. Material for ladder type cable trays, cable supports, SB, DB's supports, iron embeded in the wall, steel structure in open Area painted with two coats of primer and two coats of enamel paint. | ### | kgs | | | | | |
| 08.10.00 | HUME PIPES | | | | | | | |
| 08.11.00 | Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching and refilling etc. as required. | | | | | | | |
| 08.11.01 | 150mm dia | 20 | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.11.02 | 300mm dia | 30 | Metre | | | | | |
| 08.12.00 | Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc..direct in ground including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required. | | | | | | | |
| 08.12.01 | 160 mm dia (OD-160 mm & ID-135 mm nominal) | 40 | Metre | | | | | |
| 08.13.00 | EXTERNAL CABLE TRENCH | | | | | | | |
| | CABLE TRENCH | | | | | | | |
| 08.13.01 | Excavation of cable trench in all kinds of soil of size 1555mm(W)x1210mm (D) and providing sand cushioning to a depth of 75 mm at the bottom of trench and above cables and 150 mm at the edges of the trench as shown in the drawing and providing Protective covering with Country bricks of size 8.75 inchx4.25 inchx2.75 inch laid breadth wise for the entire width of the trench and back filling the trench with excavated earth and consolidating as described in Vol. III Technical specification | 235 | Metre | | | | | |
| 08.13.02 | Excavation of cable trench in all kinds of soil of size 300(W)x750(D) mm in all kinds of soil and providing 75 mm sand cushioning above and below the cables for the entire width of the cable and providing Protective covering with country bricks of size 8.75 inchx4.25 inchx2.75 inch laid breadth wise as shown in drg. and back filling the the trench with excavated earth and consolidating as described in Vol. III Technical specification. | 125 | Metre | | | | | |
| 08.13.03 | Supply and Installation of LT cable Route indicators made out of 100mmx100mmx6 mm GI Plate welded to 35mmx35mmx6 mm angle iron of length 600mm duly painted with anticorrosive paint in installing them 300 mm away from the edge and parallel to the trench using 1: 3: 6 concretes | 20 | Nos | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|-------|--------|--------------|----------|----------------|--------------|
| 08.13.03 | Supply and Laying Excavation of trench in all kinds of soil of size 1900 mm (W)x 1400mm (D) for laying RCC Spun pipes and back filling the trench after the pipes are laid with excavated earth and consolidating as described in Vol. III Technical specification | 15 | Metre | | | | | |
| | HUME PIPES | | | | | | | |
| 08.13.04 | Supply and Laying Non Pressure Type NP3 RCC hume pipe of 300 mm internal dia conforming to IS 458 of 2003 with collars joined with stiff mixture of cemenarately and the rate qu mortor in the proportion 1:2 (1 cement : 2 Fine Sand) in excavated trench. The excavation of trench is covered separately and the rate shall be quoted only for supply and laying of pipe only | 90 | Metre | | | | | |
| | Total for Sub Head No: VIII | | | | | | | |
| 09.00.00 | Sub Head No: IX - EARTHING | | | | | | | |
| 09.01.00 | Design, supply, erection of 600 x 600 x 3 mm Cu. plate with suitable interconnection of 2 runs of copper flates, burried in ground in a depth of 3.0 M from ground level with alternate layer of charcoal and salt including supply and fixing of 38 mm dia. perforated GI pipe with funneling for watering purpose including construction masonry works, CI cover. The cover shall be heavy duty to suit heavy vehicle movements as required and as per IS 3043. | 10 | Set. | | | | | |
| 09.02.00 | Design, supply, erection of GI Pipe earthing in a depth of 3.0 M from ground level with alternate layer of charcoal and slat including supply and fixing of 100 mm dia. CI pipe with funneling for watering purpose including construction masonry works with CI cover etc.,. The cover shall be heavy duty to suit heavy vehicle movements as required and as per IS 3043 | 24 | Set. | | | | | |
| 09.03.00 | Providing and fixing following sizes of copper wire on surface or in recess for connections etc. as required. | | | | | | | |
| 09.03.01 | 8 SWG Copper | 753 | Metre | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 09.03.02 | 10 SWG Copper | 170 | Metre | | | | | |
| 09.04.00 | Providing and fixing 60 mm x 6 mm copper strip on surface or in recess for connections etc. as required. | 61 | Metre | | | | | |
| 09.05.00 | Providing and fixing 25 mm x 3 mm copper strip on surface or in recess for connections etc. as required. | QRO | Metre | | | | | |
| 09.06.00 | Providing and fixing 50 mm x 6 mm GI strip surface or in recess for connections etc. as required. | ### | Metre | | | | | |
| 09.06.00 | Providing and fixing 25 mm x 6 mm GI strip on surface or in recess for connections etc. as required. | ### | Metre | | | | | |
| 09.07.00 | Supply and laying 16Sqmm PVC insulated wire with Copper conductor on surface or in recess for connections etc. as required. | 78 | Metre | | | | | |
| 09.08.00 | Supplying and laying 8 swg GI wire along with street light cable in earth including making connection from Pole to earth pipe. | 193 | Mtr | | | | | |
| 09.09.00 | Supplying and fixing of 16mm GI Rod at 1.5Mtr Depth for street light pole earthing including connections etc., | 22 | Each | | | | | |
| | Total for Sub Head No: IX | | | | | | | |
| 10.00.00 | Sub Head No: X - LIGHTNING CONDUCTOR | | | | | | | |
| | LAB BUILDING | | | | | | | |
| | Air Terminal | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|-------|--------|--------------|----------|----------------|--------------|
| 10.01.00 | Supply of 8 mm Aluminum Round Conductor complete as specified in drawing and directed by Engineer & Meets the requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305) | 409 | Metre | | | | | |
| 10.02.00 | Folding clamp to hold 8 mm Al conductor at every 1m without any drilling on roof . | 271 | Nos. | | | | | |
| 10.03.00 | Polyamide roof cable holder for flat roof: DIN 48829 Form B1. Closed form with bottom. Filling weight 1Kg (frost-resistant concrete). Sleeve from polyethylene, black @ 1 meter distance. | 138 | Nos. | | | | | |
| 10.04.00 | Vertical air terminal with accessories: Providing of Air terminals as per IS-IEC-62305 part-3 16mm rod tapered to 10 mm aluminium rod :Meets the technical specification according to DIN EN 50164-2 (VDE 0815 part 202). Meets the requirement of VDE0185/305(IS/IEC 62305) 3Mtr Airterminal: semi-hard (E-AlMgSiO5 corresponds to DIN 48801) Suitable for high wind load. | 2 | Nos. | | | | | |
| 10.05.00 | System consist of Fang Fix with base and clamp, on the top air terminal is erected. | 2 | Nos. | | | | | |
| 10.06.00 | Fang fix clamp made of SS, lightning tested for 100 KA 10/350 micro sec waveform. 16 KG stone of 365 mm diameter, high level of stability. Quick and easy mounting of interception rod using anchors. Concrete, frost-resistant, can be stacked. | 2 | Nos. | | | | | |
| 10.07.00 | Providing and fixing of cross connector/T connector: to route vertical down conductor /mesh formation made of stainless steel/hot dipped galvanised iron with necessary screws etc as required. Installed with 4 hexagonal bolts M8*25 with M8 hexagonal nuts . | 35 | Nos. | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|------|-------|--------|--------------|----------|----------------|--------------|
| 10.08.00 | Providing and fixing of expansion piece with connector: For equalising temperature related length changes. Necessary on conductors length over 20 meters. For round conductor Rd 8/ALU. | 17 | Nos. | | | | | |
| 10.09.00 | Connector: For T cross and parallel connectors. Quick installation using hexagonal bolt M10X30 high-grade hot dip galvanised. Conforms to the requirements according to DIN VDE 0185-305 (IS-IEC 62305)(2nos/expansion piece). | 34 | Nos. | | | | | |
| | Down Conductor | | | | | | | |
| 10.10.00 | Supply of 8 mm Aluminum Round Conductor complete as specified in drawing and directed by Engineer & Meets the requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305) | 1130 | Mtrs. | | | | | |
| 10.11.00 | Supply of Roof conductor holder for parapet- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance | 1130 | Nos. | | | | | |
| 10.12.00 | Providing and fixing of cross connector/T connector: to route vertical down conductor /mesh formation made of stainless steel/hot dipped galvanised iron with necessary screws etc as required. Installed with 4 hexagonal bolts M8*25 with M8 hexagonal nuts . | 45 | Nos. | | | | | |
| 10.13.00 | Supply of Test Joint (Folding Clamp) suitable to connect 8mm round conductor and max by 30x3 mm GI strip as specified in drawing and directed by Engineer | 4 | Nos. | | | | | |
| 10.14.00 | Lightning counter - To count no of lightning strike & it can record the date and time of the lightning incident also tested as per IEC 62561-6. | 1 | No. | | | | | |
| | Earthing | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 10.15.00 | Providing and laying Galvanised Steel Flat 30X3 mm thick from earth electrode directly in ground as required. Hot Dip GI strip, corrosion resistant. Cross sectional area of 90mm square According to DIN EN 50164-2 (VDE 0185 part 202) Meets the requirement of VDE0185/305(IS-IEC 62305) Zinc coating: 500 g/m square (70 micron coating) Should be tested and use exclusively for lightning protection earthing system and ring equipotential bonding. | 206 | Mtr | | | | | |
| 10.16.00 | Providing and fixing of Cross connector for Flat: Suitable for 30mm Galvanised steel strip. Installed with 4 nos of hexagonal plate. | 10 | Nos. | | | | | |
| 10.17.00 | Providing and fixing of flat conductor holder suitable for FL 30. Installed with 2 hexagonal bolts. | 4 | Nos. | | | | | |
| 10.18.00 | Providing and fixing of Plastic Corrosion Protection strip: Approx 1.1 mm thick. Width 50mm. Made of petrolatum- coated chemical fibre fabric. | 1 | No. | | | | | |
| 10.19.00 | Supply of UL Listed maintenance free ,Low carbon copper coated earth rod of 3 metre electrode having diameter of 17.2 mm with copper coating thickness of 250micron tested as per IEC 62561-2 | 4 | Nos. | | | | | |
| 10.20.00 | Providing with universal clamp made of SS to connect rod with flat conductor | 4 | Nos. | | | | | |
| 10.21.00 | Supply of Earth conductivity enhancing mineral compound shall be of 25 kg/pit tested as per IEC 62561-7 | 4 | Nos. | | | | | |
| 10.22.00 | Providing with heavy duty earth inspection chamber with load bearing capacity of 5000kg with heavy duty cover is provided | 4 | Nos. | | | | | |
| 10.23.00 | Installation Charges of above Lightning Conductor for Lab Building | 1 | Lot. | | | | | |
| | UTILITY BUILDING | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|-------|--------|--------------|----------|----------------|--------------|
| 10.24.00 | Supply of 8 mm Aluminum Round Conductor complete as specified in drawing and directed by Engineer & Meets the requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305) , | 288 | Metre | | | | | |
| 10.25.00 | Supply of Roof conductor holder for parapet- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance | 244 | Nos. | | | | | |
| 10.26.00 | Polyamide roof cable holder for flat roof: DIN 48829 Form B1. Closed form with bottom. Filling weight 1Kg (frost-resistant concrete). Sleeve from polyethylene, black @ 1 meter distance. | 44 | Nos. | | | | | |
| 10.27.00 | Providing and fixing of cross connector/T connector: to route vertical down conductor /mesh formation made of stainless steel/hot dipped galvanised iron with necessary screws etc as required. Installed with 4 hexagonal bolts M8*25 with M8 hexagonal nuts . | 15 | Nos. | | | | | |
| 10.28.00 | Providing and fixing of expansion piece with connector: For equalising temperature related length changes. Necessary on conductors length over 20 meters. For round conductor Rd 8/ALU. | 10 | Nos. | | | | | |
| 10.29.00 | Connector: For T cross and parallel connectors. Quick installation using hexagonal bolt M10X30 high-grade hot dip galvanised. Conforms to the requirements according to DIN VDE 0185-305 (IS-IEC 62305)(2nos/expansion piece). | 20 | Nos. | | | | | |
| 10.30.00 | Supply of 8 mm Aluminum Round Conductor complete as specified in drawing and directed by Engineer & Meets the requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305) | 50 | Mtrs. | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 10.31.00 | Supply of Roof conductor holder for parapet- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance | 50 | Nos. | | | | | |
| 10.32.00 | Supply of Test Joint (Folding Clamp) suitable to connect 8mm round conductor and max by 30x3 mm GI strip as specified in drawing and directed by Engineer | 6 | Nos. | | | | | |
| 10.33.00 | Lightning counter - To count no of lightning strike & it can record the date and time of the lightning incident also tested as per IEC 62561-6. | 1 | Nos. | | | | | |
| 10.34.00 | Providing and laying Galvanised Steel Flat 30X3 mm thick from earth electrode directly in ground as required. Hot Dip GI strip, corrosion resistant. Cross sectional area of 90mm square According to DIN EN 50164-2 (VDE 0185 part 202) Meets the requirement of VDE0185/305 (IS-IEC 62305) Zinc coating: 500 g/m square (70 micron coating) Should be tested and use exclusively for lightning protection earthing system and ring equipotential bonding. | 235 | Mtr | | | | | |
| 10.35.00 | Providing and fixing of Cross connector for Flat: Suitable for 30mm Galvanised steel strip. Installed with 4 nos of hexagonal plate. | 18 | Nos. | | | | | |
| 10.36.00 | Providing and fixing of flat conductor holder suitable for FL 30. Installed with 2 hexagonal bolts. | 6 | Nos. | | | | | |
| 10.37.00 | Providing and fixing of Plastic Corrosion Protection strip: Approx 1.1 mm thick. Width 50mm. Made of petrolatum- coated chemical fibre fabric. | 1 | No. | | | | | |
| 10.38.00 | Supply of UL Listed maintenance free ,Low carbon copper coated earth rod of 3 metre electrode having diameter of 17.2 mm with copper coating thickness of 250micron tested as per IEC 62561-2 | 4 | Nos. | | | | | |
| 10.39.00 | Providing with universal clamp made of SS to connect rod with flat conductor | 4 | Nos. | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|---------|--------|--------------|----------|----------------|--------------|
| 10.40.00 | Supply of Earth conductivity enhancing mineral compound shall be of 25 kg/pit tested as per IEC 62561-7 | 4 | Nos. | | | | | |
| 10.41.00 | Providing with heavy duty earth inspection chamber with load bearing capacity of 5000kg with heavy duty cover is provided | 4 | Nos. | | | | | |
| 10.42.00 | Installation Charges of above Lightning Conductor for Utility Building | 1 | Lot. | | | | | |
| | Total for Sub Head No: X | | | | | | | |
| 11.00.00 | Sub Head No: XI - Street / Yard Lighting | | | | | | | |
| | Electrical contractor scope shall be upto extrenal street light db only. | | | | | | | |
| | Civil contractor scope shall be from db to street light pole fixture & street light cable. | | | | | | | |
| | Total for Sub Head No: XI | | | | | | | |
| 12.00.00 | Sub Head No: XII - SAFETY EQUIPMENTS : | | | | | | | |
| 12.01.00 | Supply and installing the following items as per local Electrical Inspectorate's requirement. | | | | | | | |
| 12.02.00 | 6 mm thick rubber mat. | 50 | Sq. Mt. | | | | | |
| 12.03.00 | 12 mm thick rubber mat. | 10 | Sq. Mt. | | | | | |
| 12.04.00 | Fire Buckets stand suitable for 4 Nos. fire buckets with Fire Buckets filled with stand. | 2 | Each | | | | | |
| 12.05.00 | First Aid Box with stand. | 2 | Each | | | | | |
| 12.06.00 | Shock Treatment Chart in 2 Language (Local Language and English) | 2 | Each | | | | | |
| 12.07.00 | Supply & Fixing HT cable route marker with 10cm. x 10cm. 5mm thick G.I.plate with inscription thereon, bolted/ welded to 35mm x 35mm x 6mm angle iron, 60 cm. long and fixing the same in ground as required. | 10 | Each | | | | | |
| 12.08.00 | Supply and fixing of 11 KV Al Danger Boards of size 12" x 8" both in Tamil and English | 5 | Each | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| 12.09.00 | Supply and fixing of 440V AI Danger Boards of size 6"x 4" both in Tamil and English | 25 | Each | | | | | |
| 12.10.00 | Supply of 11 KV Tested Gloves with Box filled with chalk powder. | 1 | Set | | | | | |
| 12.11.00 | Supply, Erection, Testing and commissioning of "EXIT" sign lamp fitted with integral inverter and battery for half an hour back up power with necessary suspension arrangement,connecting wires and all as required as per site requirement. | 30 | Each | | | | | |
| 12.12.00 | Supply, Erection, Testing and commissioning of "ENTRY" sign lamp fitted with integral inverter and battery for half an hour back up power with necessary suspension arrangement,connecting wires and all as required as per site requirement. | 30 | Each | | | | | |
| | Total for Sub Head No-XII | | | | | | | |
| 13.00.00 | Sub Head No: XIII - GROUND FLOOR-RESTAURANT, SEMINAR HALL,MD, MEETING , OFFICE ROOM | | | | | | | |
| 13.01.00 | PANELS (RESTAURANT, SEMINAR HALL,MD, MEETING , OFFICE ROOM) | | | | | | | |
| 13.02.00 | LT METER BOARD (10-60A) | 1 | Each | | | | | |
| | CABLE ENTRY : IN-BOTTOM & OUT-TOP | | | | | | | |
| | Supply & erection of floor mounting free standing dust & vermin proof LT METER BOARD comprising of :- | | | | | | | |
| | EB METER-SUPPLIED BY TNEB | | | | | | | |
| | with sealing arrangement for the doors.and separate Meter compartment with EB Meter mounting plate provision including wiring with view glass, etc. as per the TNEB norms. | | | | | | | |
| 13.03.00 | RETAIL SSB | 1 | Each | | | | | |
| | Supply, Installation, Testing and Commissioning of Medium Voltage Floor mounting Cubicle Type Distribution Board suitable for 415 V, 3 Phase, 50 Hz Power Distribution System with the following mounting complete as per specifications attached. | | | | | | | |
| | INCOMER | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | 1 Nos 100 Amps TP&N Fixed Type MCCB with Manual Closing Mechanism of 16 kA Short Circuit Rating with Thermal O/L and Magnetic S/C Protection | | | | | | | |
| | BUS BARS | | | | | | | |
| | 1 Sets of 100 Amps TP&N Aluminium Bus Bars with suitable RYBN color coding heat shrink sleeve. | | | | | | | |
| | The Phase Bus bar shall be 25 x 6 mm. and the Neutral bar shall be 25 x 6 mm. The Earth CU. Bus bar shall be 25 x 3 mm. | | | | | | | |
| | Metering | | | | | | | |
| | 1 Set of R Y B LED Type Indicating Lamps with HRC fuses and toggle switches incomer shall have digital type multi function meter, suitable rating of CTs, with communication port RS 485 having MODBUS Protocol.. | | | | | | | |
| | OUT GOINGS | | | | | | | |
| | 4 Nos 40 Amps TP&N MCB with suitable digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | 6 Nos 32 Amps TP&N MCB with suitable digital type energy meter with class 0.5 accuracy, suitable rating of CTs with communication port RS 485 having MODBUS Protocol for each outgoing. | | | | | | | |
| | | | | | | | | |
| 13.05.00 | GF LDB-3(OFFICE AREA & SEMI NAR HALL) | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 8 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 24 Nos 6 A SP MCB | 1 | Each | | | | | |
| | | | | | | | | |
| 13.06.00 | GF PDB-3(OFFICE AREA & SEMI NAR HALL) | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 12 Nos 16/20 A SP MCB | 1 | Each | | | | | |
| 13.07.00 | AHU DB-1 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Vertical type 12 WAY TP & N MCCB Distribution Board with MCCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 63 A, TPN MCCB Outgoing : 12 Nos 32 A TPN MCCB | 1 | Each | | | | | |
| 13.08.00 | RESTAURANT DB/ISO/MCB | | | | | | | |
| 13.08.01 | SHOP LPDB-1,2,3 | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 40 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 12 Nos 10/20 A SP MCB | 3 | Each | | | | | |
| 13.08.02 | RESTAURANT LDB | | | | | | | |
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 12 WAY SP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 40 A 4P MCB Outgoing : 8 Nos 6/10 A SP MCB | 1 | Each | | | | | |
| 13.08.04 | RESTAURANT PDB | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|--|-----|------|--------|--------------|----------|----------------|--------------|
| | Fabrication, Supply, Installation, Testing and Commissioning of Phase Segregated Type 4 WAY TP & N MCB Distribution Board with 'C' curve MCB's and double door, dust & vermin proof and copper bus bar comprising of the following : Incoming : 1No 40 A, 4P MCB and 3 Nos 40 A DP 30mA ELCB Outgoing : 12 Nos 10/20 A SP MCB | 1 | Each | | | | | |
| 13.08.05 | Supply,erection,testing and commissioning of 32A 4P MCB ISOLATOR switch suitable interconnections for cable termination the panel need to be modified as per site conditions.(Inverter) | 2 | NOS | | | | | |
| 13.08.06 | Supply,erection,testing and commissioning of 10A DP MCB 'D' Curve suitable interconnections for cable termination the panel need to be modified as per site conditions.(Inverter socket) | 2 | NOS | | | | | |
| | | | | | | | | |
| 13.08.07 | Supply and Erection of 0.5 KVA INVERTER Systems with 1-phase input and single phase output. Maintanance free batteies suitable for backup system should have Half an hour continous rating.The scope includes providing neccessary battery stand , inter connecting cables from INVERETR battery.The scope also includes providing neccessary by-pass arrangement and all other requirements. The capacity of the battery shall be of 240V DC with a minimum of 18 ampere hour and | 1 | Each | | | | | |
| | | | | | | | | |
| 13.09.00 | LIGHT FIXTURE (RESTAURANT, SEMI NAR HALL, MD, MEETING , OFFICE ROOM) | | | | | | | |
| 13.09.01 | Supplying, Erecting, connecting & commissioning of surface mounted down light fixture 18 Watts LED. (BAJAJ-BGSLO SLEEK 18W WH or equivalent CGL/Philips model no.) and with necessary clamps, screws etc. | 86 | NOS | | | | | |
| 13.09.02 | Supplying, Erecting, connecting & commissioning of False ceiling mounted square light fixture with 36 Watts LED. (BAJAJ-BCTBLR 36W ATN WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 28 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 13.09.03 | Supplying, Erecting, connecting & commissioning of Recess mounted connect sereies light fixture with 20 Watts LED. (BAJAJ-BRTX 20W LED WH or equivalent CGL/Philips model no.) and driver with necessary clamps, screws etc. | 30 | NOS | | | | | |
| 13.09.04 | Supplying, Erecting, connecting & commissioning of Strip LED 5 Watts. (BAJAJ-BCFL 300 25WIP20 WW or equivalent CGL/Philips model no.) with necessary clamps, screws etc. | 180 | M | | | | | |
| 13.09.05 | Supplying, Erecting, connecting & commissioning of 5 Watts LED strip driver. | 50 | NOS | | | | | |
| 13.10.00 | LIGHT POINT WIRING (RESTAURANT, SEMINAR HALL,MD, MEETING , OFFICE ROOM) | | | | | | | |
| 13.10.01 | Supplying, Erecting, connecting & commissioning a 2Runs of 2.5Sq.mm+1Runs of 1.5Sq.mm. (earth) FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing [LDB to Group controlled Light, SB to SB, ELDB to Group controlled Light, ELDB to SB] | 724 | M | | | | | |
| 13.10.02 | Supplying, Erecting, connecting & commissioning of MS Conduits with junction box, long bend screw type opening GI saddle with accessories laid in Surface [with false ceiling, as per lighting layout shown, etc...] | 715 | M | | | | | |
| 13.11.00 | Supplying, Wiring, Connecting and commissioning light points, fan points, 6A socket using 3x1.5 sq.mm FRLS PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) using 2.0mm thick PVC/MS conduit and conduit accessories fixing surface/concealed wiring in slab, wall drops only concealed with pvc conduit and fixing Galvanised / Cadmium plated MS switch box, 6A Single Way Modular Switch modular switch plate and making | | | | | | | |
| 13.11.01 | One Light Controlled by one way Switch through ms conduit | 7 | PTS. | | | | | |
| 13.11.02 | Two Light Controlled by one way Switch through ms conduit | 11 | PTS. | | | | | |
| 13.11.03 | Three Light Controlled by one way Switch through ms conduit. | 25 | PTS. | | | | | |
| 13.11.04 | Four Light Controlled by one way Switch through ms conduit. | 15 | PTS. | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 13.12.00 | POWER WIRING (RESTAURANT, SEMINAR HALL,MD, MEETING , OFFICE ROOM) | | | | | | | |
| | Wiring for circuit /power / sub main etc with following sizes of FRLS PVC Insulated multi stranded copper conductor wires (one each for phase, neutral and earth) for continuous earthing in Existing MS Conduit in recess/surface including making connection etc., as per specification. | | | | | | | |
| 13.12.01 | 2 x 2.5 sqmm + 1 x 1.5 sqmm (E) | ### | M | | | | | |
| 13.12.02 | 2 x 4 sqmm + 1 x 2.5 sqmm (E) | 121 | M | | | | | |
| 13.13.00 | Supplying and fixing of following sizes of MS conduit along with the accessories in surface including cutting the wall and making good the same in case of recessed conduit as required: | | | | | | | |
| 13.30.01 | 20 mm. | 491 | M | | | | | |
| 13.30.02 | 25 mm. | 190 | M | | | | | |
| 13.13.00 | Supplying, Wiring, Connecting and commissioning 6A socket outlets using 3x1.5 sq.mm FRLS PVC insulated copper conductor wire 650V grade (one each for phase, neutral and earth) using 2.0mm thick MS conduit and conduit accessories fixing surface wiring in slab, wall drops only concealed with pvc conduit and fixing Galvanised / Cadmium plated MS switch box, 6A Single Way Modular Switch, modular switch plate and making necessary connections etc., as per | 2 | NOS | | | | | |
| 13.15.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 6 A one way modular switch, 6 A 5 pin shuttered socket outlet on modular switch plate including making connections as per specifications. | 5 | NOS | | | | | |
| 13.16.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 16 A one way modular switch, 16 A 6 pin shuttered socket outlet on modular switch plate including making connections as per specifications. | 21 | NOS | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 13.17.00 | Supplying and Fixing in recess cadmium plated / galvanised M.S Switch box including providing and fixing 16 A one way modular switch, 16 A 6 pin shuttered socket outlet on modular switch plate including making connections as per specifications. (For hand dryer) | 1 | NOS | | | | | |
| 13.18.00 | 3C 2.5 sqmm PVC insulated unarmoured sheathed FRLS flexible multistrand copper cable | 110 | M | | | | | |
| 13.19.00 | Supplying and Fixing set of 16A socket outlets controlled by 16A switch with back box and fixing arrangements- for work stations / client rooms room (UPS) | 24 | NOS | | | | | |
| 13.20.00 | FRLS PVC CONDUITS FOR UPS/RAW POWER CIRCUIT | | | | | | | |
| | Supplying, Erecting, connecting & commissioning of the following Heavy duty FRLS PVC Conduits laid in floor screeding/wall. | | | | | | | |
| 13.20.01 | 20mm. Dia PVC Conduits | 300 | M | | | | | |
| 13.20.02 | 25mm. Dia PVC Conduits | RO | M | | | | | |
| 13.20.03 | 32mm. Dia PVC Conduits | RO | M | | | | | |
| 13.21.00 | PVC CASING FOR UPS/RAW POWER CIRCUIT | | | | | | | |
| | Supplying, Erecting, connecting & commissioning of the following Heavy duty FRLS PVC CASING laid in floor/furniture wall. | | | | | | | |
| 13.21.01 | 20mm. Dia PVC CASING | RO | M | | | | | |
| 13.21.02 | 25mm. Dia PVC CASING | 10 | M | | | | | |
| 13.22.00 | floor junction box for power | | | | | | | |
| | Supply and Fixing GI junction boxes made from 2mm thick pre-galvanized sheets with fixing arrangements . Necessary civil work to support from RCC slab need to be included here too. | | | | | | | |
| | For 50mm Depth | | | | | | | |
| 13.22.01 | 100 x 100x38 | RO | NOS | | | | | |
| 13.22.02 | 150 x150x 38 | RO | NOS | | | | | |
| 13.22.03 | 225 x 225x38 | RO | NOS | | | | | |
| 13.22.04 | 300 x300x 38 | RO | NOS | | | | | |
| | Total for Sub Head No-XIII | | | | | | | |

| SI No | Description | Qty | Unit | Supply | Total Supply | Erection | Total Erection | Total Amount |
|----------|---|-----|------|--------|--------------|----------|----------------|--------------|
| 14.00.00 | Sub Head No: IVX - LIASIONING CEIG & TNEB APPROVALS | | | | | | | |
| 14.01.00 | CEIG Preparation of drawings and submission to the statutory authorities such as Chief Electrical Inspectorate, obtaining approval from all statutory authorities including energizing the Installation for Electrical Installation and for commissioning the system including arranging inspection and also necessary approval / safety certificate from authorities etc | 1 | Job | | | | | |
| | The necessary statutory fees/charges will be only paid by the client against demand advice. | | | | | | | |
| | Note: TNEB demand sanction and getting supply is not in this scope | | | | | | | |
| 14.02.00 | TNEB Preparation of drawings and submission to the statutory authorities such as obtaining approval from TNEB authorities including energizing the Installation for Electrical Installation and for commissioning the system will be contractor scope at the quoted above rates. | 1 | Job | | | | | |
| | The necessary statutory fees/charges will be paid by the client against demand advice. | | | | | | | |
| | Total for Sub Head No: IVX | | | | | | | |
| | Grand Total (Sub Head No:I to IVX) | | | | | | | |
| | NOTE: | | | | | | | |
| 1 | QRO will not to considered for evaluate purpose.But if requiring during execute,payment will be made at the quoted rate. | | | | | | | |