**TENTATIVE BILL OF QUANTITY FOR 2 X 5 MVA 33/11kV PSS(GIS- Container**

| Sl. No. | BROAD REQUIREMENT FOR INFORMATION (Not to be quoted) | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Unit | Quantity For Individual PSS | Unit Rate for supply | GST on Unit rate | Total Unit Rate (C + D) | Total Supply Value (E * B) | Unit Rate for Erection | GST on Unit rate | Total Unit Rate for Erection | Total Erection Value |
| | 33kV GIS Switchgear (2 I/c + 3 O/g Xmer + 1 B/c + 2 BPT) | Set | 1 | | | | | | | | |
| | 33/11kV, 5 MVA transformer | Nos | 2 | | | | | | | | |
| | 11kV SIS Switchgear (2 I/c + 6 O/g Feeder + 1 B/c + 2 BPT) | Set | 1 | | | | | | | | |
| | 11kV O/G DP with Accessories | Set | 6 | | | | | | | | |
| | Station transformer | Nos | 1 | | | | | | | | |
| | **Type of INSULATORS to be used** | | | | | | | | | | |
| | Polymer Insulator | | | | | | | | | | |
| | **DETAIL REQUIREMENT (To be quoted)** | | | | | | | | | | |
| | **Supply erection testing and commissioning excluding any civil works of 2 x 5MVA, 33/11KV GIS substation with e-house arrangement .** | | | | | | | | | | |
| 1 | Supply erection testing and commissioning excluding any civil works of Suitable Container (E-House) as per specification to house all the Indoor equipment & accessories as detailed below from Sr.No (i) to (xx) | Lot | 1 | | | | | | | | |
| | **SITC of 33kV GIS Equipments (Indoor Type) & Accessories** | | | | | | | | | | |
| 2 | 33kV Indoor Gas Insulated Switchgear Panel consisting of Breaker-630A, Busbar-800A (Copper), Disconnectors-630A, CT (400-200/1-1A) & VT (33/√3kV / 110/√3-110/√3V) for Feeder protection of adequate size as detailed in the specification. (Relay as per technical specification, Multi-function Meter & energy meter are to be installed on the panel) (No-2) | Nos | 2 | | | | | | | | |
| 3 | 33kV Indoor Gas Insulated Switchgear Panel consisting of Breaker-630A, Busbar-800A(Copper), Disconnectors-630A & CT (400-200/1-1A) for Transformer Protection of adequate size as detailed in the specification. (Relay as per technical specification, Multi-function Meter & energy meter are to be installed on the panel) (No-3) | Nos | 3 | | | | | | | | |

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| 4 | 33kV Indoor Gas Insulated Switchgear B/C Panel consisting of Breaker-630A, Busbar-800A(Copper) , Disconnectors-630A & CT (400-200/1-1A), 33kV, 2 Core, Single Phase, IVT (33/√3kV / 110/√3-110/√3V), 3nos in a set, in a separarte draw out chamber with Digital Voltmeter with busbar plug in type with disconnector) for Bus Coupler) size as detailed in the specification.<br>( Relay as per technical specification, Multi-function Meter are to be installed on the panel) (No-1) | Nos | 2 | | | | | | | | |
| | **SITC of 11kV SIS Equipments (Indoor Type) & Accessories** | | | | | | | | | | |
| 5 | 11kV Indoor Solid Insulated switchgear Panel consisting of Breaker-630A, Busbar-1250A(Copper) & CT (600/1A) for Transformer Protection of adequate size as detailed in the specification.<br>( Relay as per technical specification & Multi-function Meter & energy meter are to be installed on the panel) (No-2) | Nos | 2 | | | | | | | | |
| 6 | 11kV Indoor Solid Insulated switchgear Panel consisting of Breaker-630A, Busbar-1250A (Copper), CT (600/1A) for Feeder protection of adequate size as detailed in the specification.<br>(Relay as per technical specification & Multi-function Meter & energy meter are to be installed on the panel) (No-6) | Nos | 6 | | | | | | | | |
| 7 | 11kV Bus-Coupler Indoor SIS Panel consisting of onsisting of Breaker-630A, Busbar-1250A(Copper) & CT (600/1A) for Transformer Protection of adequate size as detailed in the specification.<br>(Relay as per technical specification & Multi-function Meter are to be installed on the panel) (No-1) | Nos | 1 | | | | | | | | |
| 8 | 11kV, 2 Core, Single Phase, IVT (11/√3kv/110/√3-110/√3V),3nos in a set, in a separate fixed type chamber with Digital Voltmeter inside Control Room separately for Bus-1 & Bus-2 (Set-2) | Nos | 2 | | | | | | | | |
| 9 | 48 V, 100 AH, maintenance free VRLA Battery (Set = 4 Nos Battery of 12V each ) (Set-1) | Nos | 1 | | | | | | | | |

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| 10 | 48V, Float cum Boost Battery Charger (15 A float charging, 20 A boost charging) (No-1) | Nos | 1 | | | | | | | | |
| 11 | 48 V DC Distribution Board (No-1) | Nos | 1 | | | | | | | | |
| 12 | Integrated AC Distribution Board/Main Lighting DB/ Indoor Lighting DB with SCADA compatibility. (Multi-function Meter to be installed on the panel) (Lot-1) | Lot | 1 | | | | | | | | |
| 13 | CCTV surveilance with Two camera for E House monitoring and Two Camera for outdoor monitoring As per Specification. (Lot-1) | Lot | 1 | | | | | | | | |
| 14 | FDA with Fire cum smoke detectors as per specification.(Lot-1) | Lot | 1 | | | | | | | | |
| 15 | 1.5 Ton capacity Split Air Conditioning units(5 Star rated) with Remote control facility with voltage stabiliser (No-5) | Nos | 5 | | | | | | | | |
| 16 | 400 mm sweep 135W 220Volt A/C Standing Fan (No-1) | Nos | 1 | | | | | | | | |
| 17 | Control Cable (XLPE Cu Unarmoured) For indoor wiring inside E House.(Lot-1) | Lot | 1 | | | | | | | | |
| 18 | Lighting inside E House (Lot-1) | Lot | 1 | | | | | | | | |
| 19 | Rubber Mat (Lot-1) | Lot | 1 | | | | | | | | |
| | **SITC of 33/11kV, 2 X 5 MVA Transformer & 100kVA Station Transformer** | | | | | | | | | | |
| 20 | Supply erection testing and commissioning excluding any civil works of 5MVA, 33/11kV Power Transformer DYn11 (Outdoor Installation) with Accessories | Nos | 2 | | | | | | | | |
| 21 | Supply erection testing and commissioning excluding any civil works of 100 KVA 33/0.433kV Energy efficient Auxilary Station Transformer | Nos | 1 | | | | | | | | |
| 22 | RTCC as per tech specs and scope of work | Nos | 2 | | | | | | | | |
| 23 | 30kV, 10kA, Metal Oxide, Class-2, Surge Arrester (for 33kV Incoming Line - Double source, HT side of 2 nos. Power Transformers and 33/0.433kV Station Transformer) - Outdoor Type with Surge Counter | No. | 9 | | | | | | | | |
| 24 | Center Rotating, 33kV, 1250A, 25kA, Beam Mounted Single Isolator ( Motorised) Double break Double Tandem operating pipe With Earth Switch, Base channel, Post insulator (For Incoming Line) - Outdoor Type | Set | 2 | | | | | | | | |
| | **SITC of 11kV Equipments (outdoor Type)** | | | | | | | | | | |

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| 25 | 9kV, 5kA, Metal Oxide, Surge Arrester with out surge counter( For Transformers & Out Going Feeders) - Outdoor type | No | 18 | | | | | | | | |
| 26 | Center Rotating, 11kV, 1250A, 25kA, Out door Single Isolator Double break Double Tandem operating pipe With Earth Switch, Base channel, Post insulator (for out going Feeders) | Set | 6 | | | | | | | | |
| | **SITC of Insulator & Hardware Fittings** | | | | | | | | | | |
| 27 | 33kV 70 kN Polymer Disc Insulator String at 33kV Gantry, Bus (4 Nos of Insulator in one Tension String/Set) | Set | 6 | | | | | | | | |
| 28 | 33kV 70 kN Polymer Tension Insulator at 33kV Gantry, Bus | Set | 9 | | | | | | | | |
| 29 | 33kV Polymer Post Insulator at 33kV Gantry, Power Transformer | Set | 9 | | | | | | | | |
| 30 | 70 kN Polymer Tension Insulator at 11kV Out Going Feeder (2 Nos of Insulator in one Tension String/Set) | Set | 12 | | | | | | | | |
| 31 | 3-bolted (M-16) PG clamp suitable for AAAC 148 sq. mm Conductor (For Isolator & Surge Arrester at 33kV side gantry, Surge Arrester at 33kV side of Power Transformer) | No | 15 | | | | | | | | |
| 32 | 3-bolted (M-16) PG clamp suitable for 100sqmm AAA Conductor (For Isolator & Surge Arrester) at 11kV side | No | 18 | | | | | | | | |
| 33 | 148 sq. mm AAAConductor for 11 kV , Station Jumpering etc | Km | 0.15 | | | | | | | | |
| | **SITC of Substation Earthing System GI** | | | | | | | | | | |
| 34 | (Supply of Earth Mat at a depth of 600mm including excavation ,soil treatment,painting etc as per specification ) Earthing Conductor For Burial : 75X10 mm (5.89 Kg/Mtr.) GI Flat for Supply (spacing maximum 2m both ways) | Km | 1.5 | | | | | | | | |
| 35 | Supply of Earthing Conductor: 50X6 mm (2.4Kg./Mtr.) GI Flat for Raiser from the burial earth mat to equipment, structure etc) | Km | 1.2 | | | | | | | | |

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| 36 | Supply of Earthing Device & Associated Accessories (Heavy duty GI Perforated Pipe of ID=40mm & OD=50 mm with 3000mm long for treated Earth Pit) including excavation, soil treatment with Bentonite powder, supply of charcoal, etc and also making of earth chamber with brick masonary (1:5) , PCC (1:4:8) and with cast iron cover size of the pit 450mmX450mm X600 mm depth as per direction of TPWODL. | Set | 50 | | | | | | | | |
| 37 | Flexible Cu. Earth bond 1cm dia & 500mm long, both end provision of socket suitable for M-16 bolts. | No | 20 | | | | | | | | |
| | **SITCSwitchyard GI Structures Column & Beam (with H-Type Pole) for 33kV side including Foundation Bolts & Nuts** | | | | | | | | | | |
| | **SITC of Different Types of Columns With Details** | | | | | | | | | | |
| 38 | T-1 GI Column ( for 33 kv incoming line & near Power Transformer ) (7.25 mtr long, consisting of 2 Nos of 150X76X6.5 mm channel jointed by plates) Nominal Unit Wt - 0.35 MT | MT | 0.7 | | | | | | | | |
| 39 | T-2 GI Column (for 33 kv incoming line & near Power Transformer ) (7.25mtr long, consisting of 2 Nos 175X75X6 mm channel jointed by plates) Nominal Unit Wt - 0.42 MT | MT | 0.42 | | | | | | | | |
| 40 | G-3 GI Beam(5.05mtr long, consisting of 2 Nos 150X75 X5.7mm) for 33kV incoming line - (2 nos. Beam- one for Surge Arrester and other for Isolator, Nominal Unit Wt -0.2 MT) | MT | 0.4 | | | | | | | | |
| | **SITC of GI Nuts & Bolts** | | | | | | | | | | |
| 41 | GI Nuts & Bolts etc for column and beam & Equipment Structures | Metric Ton | 0.4 | | | | | | | | |
| 42 | GI Spikes with cone and GI ( 2 nos) base plate 10mm (50x2500 mm GI pipe) (Unit Wt=0.035 MT) | MT | 0.07 | | | | | | | | |
| | **SITC Materials for holding of 33kV I/C Power Cable from Isolator** | | | | | | | | | | |
| 43 | 125x70x5 RS GI joist 8Mtr (13.3kg / Mtr) (02 no) for supporting of 33kV Cable from Isolator (Unit Wt=0.1064 MT) | Nos | 4 | | | | | | | | |
| 44 | (100 x 50 x5 mm) GI Channel (9.56kg / Mtr) (1Mtr - 04 nos) for supporting of 11kV Cable for 0/G feeder per DP (Unit Wt=0.00956 MT) | Nos | 8 | | | | | | | | |

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| 45 | 65X65X5 mm GI Angle (5.8 kg/Mtr) as Base Clit for 125X70X5 mm RS Joist (02 nos./DP) Unit Wt: 0.00232MT | Nos | 8 | | | | | | | | |
| | **SITC of Materials for holding of power cable at 33kV & 11kV side of Power Transformer** | | | | | | | | | | |
| 46 | 125x70x6 RS GI joist 5Mtr (13.3kg / Mtr) (04 no) for supporting of 33kV Cable Et 11kV cable (Total - 2x4=8nos) for 02 nos of Power Transformers (Unit Wt=0.0665 MT) | Nos | 8 | | | | | | | | |
| 47 | (100 x 50 x5 mm) GI Channel (9.56kg / Mtr) (2Mtr - 06 nos) for supporting of 33kV Et 11kV power Cable (Total - 2x6=12nos) for 02 nos of Power Transformers(Unit Wt=0.01912 MT) | Nos | 12 | | | | | | | | |
| 48 | Base Plate (600 X 600 X 16 mm thick) (Unit Weight - 0.04522 MT) | Nos | 8 | | | | | | | | |
| 49 | LA mounting plate (270 x 270 x 8 mm thick)(Unit weight 0.00458 MT) | Nos | 15 | | | | | | | | |
| 50 | Stiffner Plate (300 x 100 x 10 mm thick)( Unit weight - 0.00236 MT) | Nos | 32 | | | | | | | | |
| 51 | GI clamps, Nuts and bolts for holding power cable at power transformer, isolator etc. | MT | 0.185 | | | | | | | | |
| | **SITC of Supply of Equipment Structures.(GI)** | | | | | | | | | | |
| 52 | For 33 KV Isolator (Unit Wt of Equipment Structures per set - 0.33 MT) | Metric Ton | 0.66 | | | | | | | | |
| | **SITC of DP GI Structure for 11kV O/G feeder with supported Channel & Angle Arrangement for Installation of Isolator , Surge Arrester & provision for holding 11kV O/G -U/G Power cable,** | | | | | | | | | | |
| 53 | 10 Mtr Long 160X160 GI WPB POLE (30.44 kg/mtr) | Nos | 12 | | | | | | | | |
| 54 | ( 100 x 50 x5 mm) GI Channel (9.56kg / Mtr) (3.330Mtr - 04nos per DP) for Isolator, Surge Arrester Arrengement (Unit Wt=0.03183 MT) | MT | 0.50928 | | | | | | | | |
| 55 | 75x40x4.8 mm Channel (7.14kg / Mtr) (3.330Mtr - 02nos per DP) (Unit Wt=0.0.02377 MT) | MT | 0.19016 | | | | | | | | |
| 56 | 50x50x6mm Angle (4.5kg / Mtr) (5.1Mtr - 02nos per DP) (Unit Wt=0.02295 MT) | MT | 0.1836 | | | | | | | | |
| 57 | 125x70x5 RS GI joist 8Mtr (13.3kg / Mtr) (02 no) for supporting of 11kV Cable for O/G feeder per DP (Unit Wt=0.1064 MT) | Nos | 8 | | | | | | | | |

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| 58 | ( 100 x 50 x5 mm) GI Channel (9.56kg / Mtr) (1Mtr - 04 nos) for supporting of 11kV Cable for O/G feeder per DP (Unit Wt=0.00956 MT) | MT | 0.15296 | | | | | | | | |
| | **SITC of Material for Installtion of Station Transformer on Plinth** | | | | | | | | | | |
| 59 | ( 100 x 50 x5 mm) Channel (9.56kg / Mtr) (2 Mtr - 02nos) Including fabrication, welding & grouting with out supply of rails for all types of Transformers. | MT | 0.258 | | | | | | | | |
| 60 | LTDB for 100KVA, 33/0.433kV Station Transformer | Nos | 1 | | | | | | | | |
| | **SITC of Materials for Installation of Power Transformer on Plinth** | | | | | | | | | | |
| 61 | 90 lb Rail 5.4 mts ( 2.7x2) 44.62 kg per mtr / Transformer each (Unit Wt=0.240 MT) Supply of rail track Including fabrication, welding & grouting with out supply of rails for all types of Transformers. | Nos | 2 | | | | | | | | |
| 62 | Supply including Fabrication works ( Cutting, welding& Supply in position etc) (300x300x10) mm GI plate 12 nos / Transformer each (Unit Wt=0.007065MT) | Nos | 24 | | | | | | | | |
| 63 | Supply including Fabrication works ( Cutting, welding& Supply in position etc) ) (65x65x5) mm GI angle of 5.4 mts length.4.9 kg/mtr. / Transformer each (Unit Wt=0.026 MT) | Nos | 2 | | | | | | | | |
| | **SITC of 33kV XLPE Armoured** | | | | | | | | | | |
| 64 | XLPE 1C x 400mm2 (from Gantry to Indoor Panel= 50 Mtr, Indoor panel to Power Transformer= 50 mtr with one spare for both (TRFOs, Isolator)) (Fire Retardant Low Smoke Type Cable) | KM | 0.8 | | | | | | | | |
| 65 | XLPE 3Core x 35 mrn2 (for Station Transformer) with Spare | KM | 0.08 | | | | | | | | |
| | **SITC of 11kV Power Cables** | | | | | | | | | | |
| 66 | XLPE 1Core x 630sq mm for transformer to Indoor Panel 50 Mtr (with one Spare for both) | Km | 0.4 | | | | | | | | |
| 67 | XLPE 1Core x 400sq mm for Indoor Panel to 0/G Feeder 50 Mtr (with one Spare for all) | Km | 0.75 | | | | | | | | |
| | **SITC of Out door Heat Shrink type Cable termination kit (for 33 kV HT Cable)** | | | | | | | | | | |
| 68 | XLPE 1Core x 400mm2, 33kV | Nos | 16 | | | | | | | | |
| 69 | XLPE 3Core x 35mm2. 33kV for Station Transformer | Nos | 4 | | | | | | | | |

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| | **SITC of In door Heat Shrink type Cable Termination kit ( For 33 kV HT Cable)** | | | | | | | | | | |
| 70 | XLPE 1Core x 400mm2, 33kV | Nos | 16 | | | | | | | | |
| | **SITC of Out door Heat Shrink type Cable termination kit (for 11kV HT Cable)** | | | | | | | | | | |
| 71 | XLPE 1 Core x 630mm2, 11kV Transformer | No | 8 | | | | | | | | |
| 72 | XLPE 1 Core x 400mm2, 11kV O/G Feeder | No | 15 | | | | | | | | |
| | **SITC of In door Heat Shrink type Cable Termination kit ( For 11kV HT Cable)** | | | | | | | | | | |
| 73 | XLPE 1 Core x 630mm2, 11kV Transformer | No | 8 | | | | | | | | |
| 74 | XLPE 1 Core x 400mm2, 11kV O/G Feeder | No | 15 | | | | | | | | |
| | **SITC of Control Cables** | | | | | | | | | | |
| 75 | 4 Core x 2.5 $mm^2$ | Km | 1 | | | | | | | | |
| 76 | 7 Core x 2.5 $mm^2$ | Km | 1 | | | | | | | | |
| 77 | 10 Core x 2.5 $mm^2$ | Km | 0.5 | | | | | | | | |
| 78 | 19 Core x 2.5 $mm^2$ | Km | 0.5 | | | | | | | | |
| 79 | 1 Core x 16 mm2 (Battery to Battery Charger & Battery Charger to DCDB) | Km | 0.3 | | | | | | | | |
| | **SITC of Cable Trench** | | | | | | | | | | |
| 80 | Supply of 2 tier 2 rows cable trench (internal width 1500 mm,depth 680 mm, with 75X75X6 mm support angles fixed RCC column of 250 X 250 mm & with ladder type cable tray (45X45X5mm two angles at both side having welded flats of 25X5 mm at a gap of 150mm) for Power & control Cable | Mtr | 40 | | | | | | | | |
| 81 | Supply of 2 tier 1 rows cable trench (internal width 750 mm,depth 680 mm, with 65X65X6 mm support angles fixed RCC column of 250 X 250 mm & with ladder type cable tray (45X45X5mm two angles at both side having welded flats of 25X5 mm at a gap of 150mm) for Power & control Cable | Mtr | 35 | | | | | | | | |
| 82 | Supply of 2 tier 1 rows cable trench (internal width 500 mm,depth 580 mm, with 50X50X6 mm support angles fixed RCC column of 250 X 250 mm & with ladder type cable tray (45X45X5mm two angles at both side having welded flats of 25X5 mm at a gap of 150mm) for Power & control Cable | Mtr | 35 | | | | | | | | |
| 83 | Supply of chequerred plate 1000X300X5.6mm thick for 12 Mtr Cable Trench in side Control Room | Metric Ton | 0.638 | | | | | | | | |
| | **SITC of 1.1 kV XLPE Power Cables** | | | | | | | | | | |

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| 84 | XLPE 4 Core x 120 mm2 ( for Station Transformer ) | Km | 0.7 | | | | | | | | |
| 85 | XLPE 4 Core x 95 mm2 ( for Oil Filtration Machine Connection ) | Km | 0.2 | | | | | | | | |
| 86 | XLPE 4 Core x 25 mm2 ( for Switchyard Lighting ) | Km | 0.3 | | | | | | | | |
| 87 | XLPE 4 Core 16 mm2 ( for Switchyard Lighting ) | Km | 0.3 | | | | | | | | |
| 88 | XLPE 2 Core 16 mm2 ( for Switchyard Lighting ) | Km | 0.3 | | | | | | | | |
| | **SITC of Sub-station Lighting** | | | | | | | | | | |
| 89 | Sub-Station Switchyard Lighting , Control Room Lighting (it includes supply of fixtures & Lamps (LED) with switch gear, GI Conduit etc.(120Wx 4 sets and 100Wx6 sets out side the control room, 18 Watt LED tube inside control room .Control Room wiring to be done with Copper wires as per the requirement (Lighting fixtures are to be fixed rigidly on the Column at a suitable height with GI tubular pole so that the required lux as per the technical specification is maintained). GI Tubular pole - 10No's., 2x18watt-24No's., 1x18watt-18No's., as per technical specification and scope of work. | Lot | 1 | | | | | | | | |
| 90 | 1.5 Ton capacity Split Air Conditioning units with Remote control facility: Including supply of split Air conditioner 5 Star rated, voltage stabiliser, control boxes (25Amp MCCB & 25Amp switch ), Remote etc. for completing the A.C scheme of control room. Each AC will have its own control through respective switch, as per technical specification and scope of work. | No | 6 | | | | | | | | |
| 91 | 1400 mm sweep 250Volt A/C Celling Fan with Regulator, as per technical specification and scope of work. | No | 6 | | | | | | | | |
| 92 | Supply of 300 mm sweep 70W A/C Exhaust Fan | No | 4 | | | | | | | | |
| | **SITC of Fire Fighting System (portable and wheel mounted sets for control room)** | | | | | | | | | | |
| 93 | Foam type- 9 Ltrs | No | 2 | | | | | | | | |
| 94 | $CO_2$ - 4.5 Kgs | No | 2 | | | | | | | | |
| 95 | Dry powder 6 Kg | No | 2 | | | | | | | | |
| 96 | Fire Bucket with Stand (4nos. in each Stand) | Set | 1 | | | | | | | | |
| 97 | NIDS System for PTR as per tech specs and scope of work | | 2 | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | **SITC of SCADA & AUTOMATION** | | | | | | | | | | |
| 98 | Ethernet Switch | EA | 2 | | | | | | | | |
| 99 | RTU Panel | EA | 1 | | | | | | | | |
| 100 | CAT-6 Cable | Mtr | 2 | | | | | | | | |
| 100.1 | CAT-6 Patch cord 2 meter for communication with RTU | EA | 1 | | | | | | | | |
| 101 | Flexible GI conduit | Mtr | 300 | | | | | | | | |
| 102 | ITC of RTU Panel | EA | 1 | | | | | | | | |
| 103 | ITC for Network Switch | EA | 1 | | | | | | | | |
| 104 | All relays/BCPU/IEDs monitoring unit integration with RTU- | EA | 1 | | | | | | | | |
| 105 | RTU Training | EA | 1 | | | | | | | | |
| 106 | GPRS Modem | EA | 1 | | | | | | | | |
| 107 | Power cord and connector | EA | 100 | | | | | | | | |
| 108 | Antenna | EA | 2 | | | | | | | | |
| 109 | **Supply of of Maintenance Testing Equipment** | Lot | 1 | | | | | | | | |
| 110 | **Supply of Tools and Plants (T&P's) Requirement** | Lot | 1 | | | | | | | | |
| | **CIVIL WORKS with supply of all materials like Cement, MS tor rod, Brick, Coarse & Fine Agregrates & Labour, T&P etc** | | | | | | | | | | |
| 111 | Contour survey, plotting the contour on graph sheet and marking the finished ground level | Sqr Mtr | 900.000 | | | | | | | | |
| 112 | **S/s area lower than Road Level (-) in Mtrs (0.50 mtrs)** | | | | | | | | | | |
| 113 | Filling of S/S area with borrowed earth (rolling & compacting of filled up soil before taking measurement). | Cum | 308.798 | | | | | | | | |
| 114 | Construction of RCC foundation structure for 33kV RMU with all necessary materials and civil works in complete | No | 1.000 | | | | | | | | |
| 115 | Prefabricated RCC Foundation for 11kV RMUs including supply of all materials | Nos. | 4.000 | | | | | | | | |
| | **CABLE TRENCH (100 mtrs)** | | | | | | | | | | |
| 115 | Excavation in all type soil (2 m width X 1.4m depth X 100mtr) | Cum | 572.978 | | | | | | | | |
| 116 | PCC (1:3:6) With cement (2 m width X 0.1m depth X 100mtr) | Cum | 25.186 | | | | | | | | |
| 117 | Brick messonaries (2x0.930x0.25x100) Same as Sr. No 6.4 | Cum | 60.419 | | | | | | | | |
| 118 | RCC (1:1.5:3)( (1.225+1.225)*0.15*0.1+(0.175*0.1*0.1))x100 mtr | Cum | 45.495 | | | | | | | | |
| 119 | Plastering with Cement mortar (1:6) | Sqmtr | 1,040.900 | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 120 | Cable trench cover prefabricated RCC( 1:1.5:3) partition slab (2000 x 300 x 75) mm using 10mm MS tor rod both way with min spacing 100mm for outdoor. 2 x 0.3 x 0.075 x 100 Mtr | Cum | 16.635 | | | | | | | | |
| | **OUT DOOR DRAIN to DISCHARGE SWITCHYARD/ WATER FROM WASH BASIN AND CONTROL ROOM ROOF (10 mts)** | | | | | | | | | | |
| 121 | Excavation in all type soil (1.35x10x0.7) | Cum | 19.720 | | | | | | | | |
| 122 | PCC (1:3:6) (1.35x10x0.1) | Cum | 6.573 | | | | | | | | |
| 123 | PCC (1:2:4) (0.3x10x0.05) | Cum | 1.811 | | | | | | | | |
| 124 | Brick Masonary with cement mortar (1:5) (0.25x10x0.925+1/2x 0.15x 0.93x10) +(0.25x10x0.925) | Cum | 9.099 | | | | | | | | |
| 125 | Plastering with Cement mortar (1:6) (2x0.25x10+2x0.925x10+1x 0.925x 10+1x1.0x10) | Sq. mtr. | 107.380 | | | | | | | | |
| | **COMPOUND WALL (120mtr)** | | | | | | | | | | |
| 126 | Earth work in excavation of foundation trenches in all kinds of soil including moorum, stony earth and earth mixed with boulders except sheet rock and boulders requiring blasting including dressing of sides and leveling the bed up to the required depth and depositing the excavated materials away from the work site within initial leads and lifts, including shoring, shuttering & dewatering (if required) with cost of labour,cess, hire & running charges of water pumps sundries , T & P & all other machinaries required for the work etc.complete in all respect as per latest specification & direction of the Engineer in charge. | Cum | 119.403 | | | | | | | | |
| 127 | Supplying and filling in foundation and plinth with good river sand well watered and rammed in layers not exceeding 23 cm in each layer including all leads and lifts, cost of all materials, labour,cess, sundries, T&P required for the work etc.complete in all respect as per latest specification & direction of the EIC. | Cum | 96.355 | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 128 | Providing and lying plain cement concrete of proportion (1:3:6) in foundation and plinths using approved quality cement, 40 mm. size black hard crusher broken granite stone metal and screened, washed sharp sand for mortar of approved quality and from approved quarry, including hoisting, lowering, laying concrete, ramming, watering and curing etc. complete to required levels laid in layers not exceeding 15cm. thick in each layer including cost, conveyance, loading, unloading, royalties and taxes of all materials and cost of all labours, cess, sundries, T&P & all other machinaries required for the work including shoring, shuttering and dewatering if required including hire & running charges of water pump etc.complete in all respect | Cum | 11.814 | | | | | | | | |
| 129 | K.B. Brick masonary in cement mortar (1:6) using the bricks of size 10" x 5" x 3" of crushing strength not less than 100 kg / centimetre square with dimensional tolerance 3% after immersing the bricks for 6 hours in water before use including hoisting to required height placing in position scaffolding, splays cutting, circular moulding, corbelling, chamfering and similar such type of work watering and curing etc. including cost, conveyance, royalty, cess, and taxes of all other materials machinaries scaffolding all labour T&P articles required for the work etc. complete in all respect as per the latest specification confirming to relevant IS Specification and direction of the EIC. | Cum | 60.953 | | | | | | | | |
| 130 | RCC work M-20 grade as per approved designs and drawings having a minimum compressive strength (in work test) 200 Kg./ Sqcm. in 15cm. cubes at 28 days after mixing and test conducted in accordance with I.S.456 and I.S 516 using 12 mm. to 20 mm. size black hard crusher broken granite stone chips, screened and washed sharp sand for mortar of approved quality from approved quarry, to be mixed in concrete mixture with approved quality cement including hoisting, lowering, laying and compacting concrete by using vibrators, watering and curing for 28 days, centering and shuttering and finishing the exposed surface smooth providing grooves or beads wherever necessary including cost, conveyance, loading, unloading, royalties and taxes | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 131 | Footing and pedestal | Cum | 25.716 | | | | | | | | |
| 132 | Plinth Beam | Cum | 4.878 | | | | | | | | |
| 133 | Column & Beam | Cum | 19.738 | | | | | | | | |
| 134 | Cutting, Straightening coiled or bent up M.S. rods or Tor steel welding or jointing if necessary, bending, binding, tying the grills as required for R.C.C. works, providing fan hooks where necessary and hoisting, lowering and placing in proper position according to approved designs and drawings including cost, conveyance, loading, unloading, taxes of M.S. rods or Tor steel and binding wires of 18 to 20 gauge required for the work and cost of all labour, sundries, T&P and scaffolding complete in all respect as directed by the Engineer in charge (payment will be made according to the actual weight of M.S. rod / Tor steel consumed in the work and no separate payment will be made towards weight of binding wires which is to be borne by the | MT | 4.502 | | | | | | | | |
| 135 | Providing 16mm. thick cement plaster with cement mortar of mix (1:6) with approved quality cement with screened and washed sharp sand for mortar and finished smooth to the surface over brick work after racking out the joints including watering and curing, rounding of corners etc. complete with cost, conveyance, loading, unloading, royalties, cess and taxes of all materials and cost of all labours, sundries, T&P and scaffolding required for the work etc. complete in all respect as desired by the EIC. | Sq Mtr | 667.013 | | | | | | | | |
| 136 | Providing and finishing the wall surface with two coat of cement wash including scaffolding, all labour, cost, conveyance, cess, taxes of all materials, T&P articles, brushes all other machineries required for the work complete in all respect confirming to relevant I.S. Specification and direction of the Engineer-in-Charge | Sq Mtr | 667.013 | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 137 | Painting two coats with weather coat on exterior walls surface of approved quality and approved shade over a coat of primer in all floors at all height of approved quality and shade including cleaning and sand papering the surface and making the surface smooth with cost, conveyance, loading, unloading, and taxes of all materials, cost of all labour, sundries, T&P, scaffolding etc. required for the work complete in all respect as directed by EIC. | Sq Mtr | 667.013 | | | | | | | | |
| | **Power Transformer Foundation /two 8 MVA)** | | | | | | | | | | |
| 138 | Excavation in all type soil per Tfr.(3X3X1.1 mtr) | Cum | 44.500 | | | | | | | | |
| 139 | PCC (1:3:6 ) per Tfr.(3X3X0.075 mtr) | Cum | 4.760 | | | | | | | | |
| 140 | RCC ( 1:1.5:3 ) per Tfr. As per drawing | Cum | 36.150 | | | | | | | | |
| 141 | RRHG stone grouting with sand per Tfr. | Cum | 6.880 | | | | | | | | |
| | **Construction of 100kVA 33/0.4 kV station Trf. Plinth** | | | | | | | | | | |
| 142 | Excavation in all type soil (2.5X2.5X0.750 mtr) | Cum | 7.030 | | | | | | | | |
| 143 | PCC (1:3:6 ) (2.5X2.5X0.075 mtr) | Cum | 1.180 | | | | | | | | |
| 144 | RCC ( 1:1.5:3 ) (1.5X1.5X0.1 mtr) | Cum | 0.230 | | | | | | | | |
| 145 | Brick Masonary work (2.5x2.5x.925+2x(.5 x1.5x2.25) (1:5) | Cum | 14.970 | | | | | | | | |
| 146 | Cement Plastering (1:6) (1.5x2.25x4)+(1.5x1.5) 20mm thick | Sq Mtr | 26.350 | | | | | | | | |
| | **Construction of oil sump pit for Transformer (1.6x1.6x2.3)** | | | | | | | | | | |
| 147 | Excavation of Earth(2.0x2.0x2.1) | Cum | 47.353 | | | | | | | | |
| 148 | PCC (1:3:6) 2X2X0.1 | Cum | 1.180 | | | | | | | | |
| 149 | RCC(1:1.5:3) 1.6X1.6X0.1 for Top Slab | Cum | 32.030 | | | | | | | | |
| 150 | Brick Masonary work(2x2.1+2x1.6)x0.25x2.3 (1:5) | Cum | | | | | | | | | |
| 151 | Cement Plastering (1:6) 2.3 ( 4x2.1+ 4x1.6 )+ 1.6x1.6 | Sqmtr | 40.380 | | | | | | | | |
| 152 | Drainage for Oil sump pit with 250 dia hume pipe | Mtr | 24.000 | | | | | | | | |
| | **ROAD (5 Mtrs wide) Length of the road 20 mtrs** | | | | | | | | | | |
| 153 | Excavation in all type soil 0.5mx1mx5m | Cum | 59.750 | | | | | | | | |
| 154 | Boulder Packing 0.5mx1mx5m | Cum | 35.850 | | | | | | | | |
| 155 | Water base course -I 0.075mx1mx5m | Cum | 23.900 | | | | | | | | |
| 156 | Water base course -II 0.075mx1mx5m | Cum | | | | | | | | | |
| 157 | PCC ( 1:2:4 ) 0.1mx1mx5m | Cum | | | | | | | | | |
| 158 | PCC (1:4:8 ) For S/S area (75 mm) per Sqmts (11x6 + 4x4) (-) (3x3x2))x0.075 | Cum | 32.150 | | | | | | | | |

| Sl. No. | BROAD REQUIREMENT FOR INFORMATION (Not to be quoted) | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Unit | Quantity For Individual PSS | Unit Rate for supply | GST on Unit rate | Total Unit Rate (C + D) | Total Supply Value (E * B) | Unit Rate for Erection | GST on Unit rate | Total Unit Rate for Erection | Total Erection Value |
| 159 | 20 mm Nominal size crusher broken HG chips Spreading 100 mm depth. | Cum | 64.310 | | | | | | | | |
| 160 | Civil Foundation, as per specification, suitable for installation of Complete containerised substation ( E-House) (The bidders are visit site and assess the requirement of foundation type/volume and quote accordingly to support their E House) | Lot | 1.000 | | | | | | | | |
| 161 | Security shed with Toilet size 1.5 mtrX1.5 mtrX2.5mtr height with electrification and provision of 3 Nos. 20 Watt LED. The building shall be brick foundation ,brick masonary wall with RCC roof having one window arrangement with cement mortar plastering with colour washing. | Lot | 1.000 | | | | | | | | |
| 162 | Watering system like 150 mm dia, 100 Mtr deep bore well (PVC pipe to be used) 1 HP submersivele pump, switch yard water hydrant system for pouring water into the earth pits, tap for garden, including PVC pipes & other accessories required etc | Lot | 1.000 | | | | | | | | |
| 163 | GI gate (5 mtsx2.5 mts)having one leaf of size (2.5mtx2.5mt, height) with all arrangaments like 3hinges in each side to hold the gate with gate piller, locking arrangement, L drop etc along with RCC pillar with emboded channel for fixing of gates.Each gate should be 2 leaf. | No. | 1.000 | | | | | | | | |
| 164 | Small wicket (GI) gate one in between Main Gate & Security shed & another in front of Customer Care room of size 1.5 mtr width x 2 mtrs height single leaf with locking arrangement etc as per above. | No. | 1.000 | | | | | | | | |
| | **RRHG retaing wall with 1:5 cement mortar Considering 0.6 mt height of retaining wall above the existing ground level per Meter** | | | | | | | | | | |
| 165 | Excavation in all type of soil( 0.8 Cum / Mtr) | Cum | | | | | | | | | |
| 166 | PCC (1:4:8) 200 mm thick. With cement ( 0.2 Cum / Mtr) | Cum | | | | | | | | | |
| 167 | PCC (1:2:4) 50 mm thick With cement ( 0.02 Cum / Mtr) | Cum | | | | | | | | | |
| 168 | RRHG Cement Masonary (1:5) With cement ( 0.86 Cum / Mtr) | Cum | | | | | | | | | |