

Central Mechanical Engineering Research Institute, Durgapur
Electrical Engineering Services Group

Name of work : Replacement of existing old TPGO Isolator and miscellaneous Electrical works of HT Distribution Systems of CMERI, Durgapur.

| Sl.No | Description | Qty | Unit | Rate (Rs) | Amount (Rs) |
|-------|---|-----|------|-----------|-------------|
| 1 | Supply and Fixing with proper adjustment of 11 KV , 400 Amp. Outdoor type Triple Pole Switching Unit with Vertically mounted manually gang operated Air Break Isolator with explosion type Drop Out fuses (mounted on the same base channel) and standard accessories, including supply of suitable Post Insulators (22 K.V -Jayshree make, 12nos. mounted with per set), operating pipes, square shaft, handles Earthing switches etc.along with all accessories as required. The work is inclusive of Dismantling of Old TPGO Isolator from existing pole. Make : Alliance/ HT Switchgear/East land Switchgear | 1 | Set | | |
| 2 | Dismantling and refixing with proper adjustment of 11 KV , 400 Amp. Outdoor type Triple Pole Switching Unit with Vertically mounted manually gang operated Air Break Isolator with explosion type Drop Out fuses (mounted on the same base channel) and standard accessories. The work is inculsive of necessary servicing, change of defective Post Insulators, operating pipes, square shaft handles Earthing switches etc to make working condition. All necessary connections with suitable size ACSR conductors, Pin/ Disc insulators with proper type terminal kits of complete in all respect. | 1 | Set | | |
| 3 | Dismantling of fittings from existing pole and Supply, fabrication & refixing of 100X50X6mm MS Channel as base arm bracket on double pole structure including supply & fixing of suitable clamps made of 65X8mm MS Flat, C.I packing pieces, 16mm dia MS Nut-Bolt, washer of required sizes including 4 coats (2 coats primer and 2 coats final) painting. | | | | |
| a) | 2.2 Mtrs.long. | 6 | set | | |
| b) | 1.4 Mtrs.long. | 21 | set | | |
| 4 | Supply of following Materials | | | | |
| a) | 100 Sq.mm ACSR Dog Conductor. | 150 | Mtr | | |
| b) | 11 KV Pin Insulator. | 12 | set | | |
| c) | 11 KV Pin for above. | 12 | set | | |

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| d) | 11 KV Disc Insulator,(T & C) Type 45 KN. | 18 | set | | |
| e) | Hardware fittings for above | 18 | set | | |
| 5 | Dismantling of Insulator from existing pole & Refixing the same on a pole. | | | | |
| a) | 11 KV Pin with Insulator. | 12 | set | | |
| b) | 11 KV Disc Insulator,(T & C) Type 45 KN. With hardware. | 18 | set | | |
| 6 | Dismantling of conductor from O.H line, coiling and return to specified location within CMERI campus. | | | | |
| a) | 100 Sq. mm ACSR Dog. (for three conductor) | 50 | Mtr | | |
| 7 | Erection of conductor including laying, hoisting, stringing, jointing, sagging, tensioning, jumpering with suitable aluminium tape & route clearance. | | | | |
| a) | 100 Sq. mm ACSR Dog. (for three conductor) | 50 | Mtr | | |
| 8 | Change of all Nut-Bolt & Painting of HT DP Structure. | | | | |
| | Change of all 16mm. dia.MS Nut-Bolt with double washer of HT Rail pole(DP) Structure. And Painting of Rail pole(DP) including all Steel Structural for 11 KV HT Feeders (DSP Feeder No 4 & 5 for CMERI) after doing necessary scraping & surface treatment as required. With ready mixed Zinc Chromate primer of approved brand and manufacture must be used on steel galvanised iron / steel works.Painting of structure poles with Synthetic Enamel paint of approved brand and manufacture to give an even shade desired finish 2 or more coats on the structure. | 3 | Set | | |
| 9 | G I Plate Earthing & Laying of Earth strips. | | | | |
| a) | Earthing with G I earth plate 600 mm x 600 mm x 6 mm thick including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. (but without charcoal or coke and salt) complete as required | 4 | set | | |

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| | (Note : 2 Nos. Earth Pits for each HT Double pole structure (Feeder No - 4 & 5). This work will be executed as per Technical Specification for Earth Stations of CPWD) | | | | |
| b) | Extra for using coke and salt for G.I. or copper plate earth electrode as required | 4 | set | | |
| c) | Supplying and laying 25 mm X 6 mm G.I. strip at 0.50 metre below ground as strip earth electrode, including soldering etc.as required. | 40 | Mtr | | |
| 10 | Supply and drawing of SWG-6 GI wire as continuous earth wire including stringing, sagging, fixing with GI 'U' clip, GI strapper, GI eye bolt etc. with double nut and washer as required. | 100 | Mtr | | |
| 11 | Supply of following 11KV grade, UE type XLPE insulated HT cables with stranded compacted circular aluminum conductor with conductor screening by means of extruded semi conducting compound in combination with copper tape, inner sheath of PVC tape, galvanised Steel flat steel armoured, and overall PVC Sheathed cable conforming to IS : 7098/11/85 with latest amendments | | | | |
| a) | 3c x 120 Sq mm (Al) XLPE | 280 | Mtr | | |
| 12 | Laying of one number PILC/PVC insulated and PVC sheathed/XLPE power cable of grade exceeding 1.1 KV but not exceeding 11 KV, of size not exceeding 120 Sq mm direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required. | 280 | Mtr | | |
| 13 | Supplying and making Outdoor cable end Termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3cx120 sq. mm XLPE aluminum conductor cable of 11 KV grade as required; (Raychem or equivalent) | 1 | Each | | |
| 14 | Supplying and making Indoor cable end Termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for 3cx120 sq. mm XLPE aluminum conductor cable of 11 KV grade as required; (Raychem or equivalent) | 3 | Each | | |

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| 15 | Supply & Fixing of G I Pipe of 100 mm Dia (nominal) 3 Metres length along the pole for protection of under ground cable as required. | 3 | Set | | |
| 16 | Dismantling & Removal of existing Indoor type 11KV PILCDSTA (HT) cable trminations / Joints including decompounding , cleaning etc. as required complete in all respect. | 4 | Each | | |
| 17 | Digging of hole bellow the metal road by jack push method and providing 100mm. dia. Medium GI pipe (including supply of pipe.) | 15 | Mtr | | |
| 18 | Supplying cable rout marker with 10 cm. X 10 cm. X 5mm. Thick G.I. plate with inscription thereon, bolted/welded to 35mm.x35mm.x6mm. angle iron, 60 cm. long and fixing the same in ground as required. | 25 | Each | | |

Note :

*All the above mentioned work will be carried out in Phase manner after arrengeing Power Shutdown form Electricity Supply Authority (DSP-Bulk Supply Division) by Contractor. Here it is requested to visit/ inspect the existing installation before quoting any rate for the work. **Technical Documents of HT Switching devices** be enclosed along with tender Document.All dismantelled materials are to handed over to CMERI and the are to kept in the specified location within CMERI campus.*

Total Rs.

(Rupees.....only)