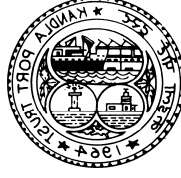




DEENDAYAL PORT AUTHORITY

ISO 9001-2008 & 14001:2004 Certified



Office of the
Executive Engineer (E)
Nirman Building,
New Kandla, Kachchh
M.No: 9825227048

www.deendayalport.gov.in

No.: EL/AC/EOI/AMC G'puri & AO Building/

Date: 14/08/2024

EXPRESSION OF INTEREST

(This Notice is issued only to elicit Expression of Interest from the parties interested in the work and does not constitute any binding commitment from the Deendayal Port Authority to proceed with the work or invite any or all the parties in the subsequent bidding process. The Open Tenders will be issued subsequently)

To,

Sub: EOI for Annual Maintenance Contract Works at A.O.B. and Gopalpuri Colony for a period of two years.

Sir,

You are requested to submit Expression of Interest for "Annual Maintenance Contract Works at A.O.B. and Gopalpuri Colony for a period of two years."

The Expression of Interest should reach to this office on or before 23/08/2024 or soft copy of EOI also acceptable through e-mail id. xenedpa@gmail.com & deepak.hazra@deendayalport.gov.in

Yours faithfully

Sd/-

Executive Engineer (E)
Deendayal Port Authority

Scope of Work & Technical Specification

This Annual Maintenance Contract shall be carried out at Gopalpuri Township and A.O. Building. Maintenance Contract includes Supply, Installation, Erection, Fixing, Testing, Termination, Commissioning including Schedule & Breakdown Maintenance, fault finding & rectification of fault, routine testing, attending of complaint on 7 Days X 24 Hrs. basis. Cleaning of electrical equipments at Substations, Water Towers, Overhead Lines, Street & Area Lighting System. Supply of consumables. Also, during tenure of contract, if any new Qtr. Of any type is constructed & commissioned, the complaint of the same shall be attended by the contractor. However, during guarantee period, the defective part (except lamp, if any), shall be not be under the scope of the Maintenance Contract. The tentative, details of various locations, equipments installed in 11 KV Substations, Overhead Lines & Residential & Non-Residential Buildings are given in Annexure – A & B. The Scope also includes providing 02 Sets of Android Phones and 3 nos. of two wheelers (one at AOB & two at Gopalpuri on 24X7 day basis) at the cost of the contractor (Including fuel, Insurance etc). The vehicles should not be older than 2024.

If any overhead conductor with its accessories is to be removed or laying of new one same will be attended by the contractor.

Area of work:

1. Gopalpuri Township:-

The Gopalpuri township Comprises of 2 nos. 11 KV/0.433 KV Main Substations, 3 nos. of outdoor compact substations and 1 no. of outdoor open substation, HT & LT Switchgears, equipments, Aerial bunched cable network and service lines and 2 DG Sets. Also Residential, Non-Residential Buildings, Water Towers, KDLB Colony, FCI Colony, Port Hospital, Guest House, Kendriyala Vidyalaya, BVM School, Street Light, Garden near Sewage Treatment Plant, Shopping Centre, Auto Garage, Isolation Ward, Estate Office, Canteen, Staff Club, Officers Club, Gymnasium, Oval Cricket/Football Ground Lighting and its sound system, Children Park, and Multi-Purpose Hall its sound system & lighting, complete HT & LT installation at Gopalpuri Township. In addition to above the new development in residential / non residential quarters (after completion of work, taken over by DPA) same shall be maintain by contractor as per instruction of EIC. the scope of Maintenance Contract includes cable HT/LT cable laying through Hard/Soft Soil, RCC, Paver block, across road same shall be done by contractor (up to the 500 Mtr length only)

2. A.O. Building:-

The administrative office Building Comprises of 11 KV 4 Pole Structure, 1 No. of 11 KV/0.433 KV substation, 1 No. 400 KVA DG Set with AMF Panel, 1 no. 100 KVA DG Set, Chairman's Wing Building, Old Building and Annex Wing Building, Staff Canteen, Gate office, Substation Building, Area Lighting, PA system of Board Room etc. the scope of Maintenance Contract includes cable HT/LT cable laying through Hard/Soft Soil, RCC, Paver block, Across road same shall be done by contractor (up to the 500 Mtr. length only).

The operation of all the electrical switchgears, DG sets, etc., in the entire electrical network of AO Building and Gopalpuri shall be in the scope of the contractor. The contractor shall check the earthing of all the office buildings, quarters, transformers and panels along with other equipments within the jurisdiction of DPA at AO Building and Gopalpuri shall be once in a year (After awarding of the contract, the contractor will start the same).

The contractor shall drain out / splash and top up the oil in the generator with labour. Oil will be supplied by DPA.

This includes replacement of existing air filter/oil filter in all the DG sets as and when required and as directed by EIC. The air/oil filter will be supplied by DPA.

This includes replacement of coolant in each DG set as and when required and as directed by Engineer incharge complete with labour. The coolant will be supplied by DPA

3. Maintenance:-

Maintenance of all electrical equipment like sub-station HT & LT panel boards, transformers, HT / LT cables, pump houses power supply system, power supply to all offices, residential & non-residential buildings, internal wiring & its accessories of quarters and Earthing also is covered under scope of this maintenance contract.

4. MAJOR REPAIR / WORKS: -

In case during the maintenance period, the installed equipment at S/s under major breakdown or Major Works & it is required to be carried out on urgent basis, the same will be decided by Engineering –In- Charge., the List of Major Repairs / Works as under (Which are not in the scope of the contractor).

- i) Repairing of Distribution Transformer.
- ii) Repairing of Compact Substation.
- iii) Repairing of VCB.
- iv) Removal/ Erection of PCC/PSC/ MS Girder pole. Poles will be supplied by DPA
- v) Stringing of ASCR/ AAA/Aerial Bunch Cable for above 1Km length (Aluminum conductor or AB Conductor will be supplied by DPA.
- vi) Replacement protection CT/PT.
- vii) Civil Foundation work

Note: The Major Repair will be carried out separately by DPA which will not come under the Scope of Contractor.

4.1 Any material which is not available with DPA and is required to rectify any fault (except Major) , the same shall be brought by the contractor and rectify the fault. However, the payment shall be reimbursed on production of invoice from the supplier. It is further that if any spare/material which is required to be purchased from the OEM directly and not available with DPA for attending any fault for smooth functioning of the system, the same shall be purchase by the contractor and DPA will reimbursed on production of the invoice from the OEM.

4.2 During the execution of Maintenance Contract, if any kind of repairs is considered to be of the major in nature like repairing/rewinding of transformer, replacement of potential/current transformer, Major repair of VCB, Compact Substation, Replacement/Erecting new PCC/PSC/Street Light Pole etc. And if same is absolutely necessary for healthy power supply system, the repair work shall be carried out through contractor as per relevant standards on receiving approval from competent authority & will be inspected by the third party inspection agency, arranged by DPA with its own cost. The cost of such repairs shall be reimbursed by DPA on actual basis to the contractor on production of relevant original documents. The rate includes the charges of dismantling, packing, forwarding, loading, unloading and transportation up to manufacturer's place & back to site at Gandhidham and re-erection of same material. (The Work order regarding such major repairs shall be placed to the Contractor after approval of competent authority)

5. Maintenance Schedules

Contractor shall get approval of maintenance schedule including pre-monsoon maintenance for equipments, installed at various Substations & overhead line before commencement of maintenance contract from Engineer-in-Charge.

The contractor shall inform well in advance for taking power shut down as & when required for preventive/periodical/schedule maintenance in 11 KV Substation in order to intimate concerned port officials to enable them to make necessary arrangements during power shutdown.

The Contractor shall attend day-to-day maintenance work like Housekeeping, Cleaning of Substation, HT & LT Panels, VCB's, Relay, Power Pack, and Transformers & Compact Substation etc.

6. Filtration of Transformer oil:

After filtration of the same Contractor shall submit the test reports to the Engineer-in-Charge (Transformer Oil will be supplied by DPA free of cost).

7. Relay co-ordination:

The AMC also includes, relay setting & its Co-Ordination of installed working relays on HT panel.

8. Consumables

The Contractor, during period of Maintenance Contract, has to arrange the consumable and deposit the same at Electrical Store of DPA at his own cost for carrying out routine maintenance work and contractor shall re-coupe every month in DPA sub Division Store. Any material will be issued on production of requisition by contractor which has to be maintained in the register by the contractor.

| Consumable Items (TO BE RE-COUPÉ EVERY MONTH) | | |
|--|--|-------------|
| Sr. No. | Description | Minimum Qty |
| 1 | Petroleum Jelly | 2 Kg. |
| 2 | Silica Gel | 5 Kg. |
| 3 | Contact Cleaner spray | 02 Nos. |
| 4 | M-Seal (100 GRAM) | 02 Nos. |
| 5 | Araldite (36 GRAM) | 02 Nos. |
| 6 | Fuse wire HT & LT (400 GRAM) | 02 Nos. |
| 7 | PVC Insulation tape (RED/YELLOW/BLUE/BLACK) – 6.5 M | 50 Nos. |
| 8 | Bitumen Impregnated Cotton Tape (4" W x 20 MTR. LENGTH) | 10 Nos. |
| 9 | Water proof Rubber Tape (0.75 INCH X 6.25 MTR.) | 15 Nos. |
| 10 | Emery Cloth Roll (4" X 5 Mtr.) | 5 Nos. |
| 11 | Scotch Brite (4X5.5) | 10 Nos. |
| 12 | Indication lamps LED type | 25 Nos. |
| 13 | HC – 80 (Anti Tracking Spray) make ASV (700 ML) or its equivalent | 02 Cane |
| 14 | Penetroil (Rust Remover Against WD – 40) make ASV (450 ML) or its equivalent | 02 Cane |
| 15 | Elepro 200 OR its equivalent (Moisture Displacer) make ASV – 300 grams | 02 Nos. |
| 16 | Premium (On Line Contact Cleaner) make ASV or its equivalent(400 ML) | 5 Tins |
| 17 | Aluminium Foil Tape (Cavity Sealing Tape) make 3 M or its equivalent (0.75 in x 9 ft.) | 5 No. |
| 18 | Scotch 23 (High Voltage Tape) make 3 M or its equivalent (50.8mm X 9.1m) | 10 Nos. |

| | | |
|----|--|--------------------|
| 19 | Electrical Putty (Insulation Putty) make 3 M or its equivalent (114 gram) | 5 Nos. |
| 20 | HT Heat shrink sleeves (90 mm X 1 mtr. length) | 5 sets |
| 21 | LT Heat shrink sleeves (30 mm X 1 mtr. Length (4 colours set) | 5 Sets |
| 22 | Cleaning agent viz. Soap, Detergent Powder | 1 Kg. |
| 23 | Epoxy Insulators for VCB/OCB (450 mm or as per site requirement) | 10 nos. |
| 24 | Cotton, Hosiery general Cotton Waste Chindi, Packaging Size: 50 kg | 50 Kg. |
| 25 | Yellow cloth (0.5 mtr. X 0.5 mtr.) | 10 nos. |
| 26 | Stainless Steel nut bolt and washer | 25 kg. |
| 27 | MS nut bolt and washer | 25 Kg. |
| 28 | Copper Nut Bolts and Washer | 5 Kg. |
| 29 | Barrel Pump (hand operated) | 1 no. |
| 30 | DG Sets Hose Pipe | As per requirement |
| 31 | AMF Panel Contactors suitable for 125 KVA DGsets. | 02 Nos. |
| 32 | AMF Panel Contactors suitable for 400 KVA DGsets. | 02 Nos. |
| 33 | Lugs & ferrule for LT cable size up to 150 sq.mm | 100 Nos. |
| 34 | Lugs & ferrule for HT cable size up to 150 sq.mm | 50 Nos. |
| 35 | Battery 2 Amps, 1.5 Volt AA size for PA system at Board Room – Duracell Alkaline | 100 Nos. |

Note : If any other consumables are felt necessary for execution of the work, the same shall be arranged by the contractor at their cost.

9. Tools & Tackles

Tools & Tackles are to be arranged by Contractor during the period of Maintenance Contract and shall be provided by Contractor to his workmen at his own cost.

| Tools & tackles Instruments | | |
|-----------------------------|---|----------|
| Sr No | Description | Quantity |
| 1 | Multi Meter (Fluke / Hioki / Megger / Metravi / HTC) | 2 Nos. |
| 2 | 5000 V Insulation Tester (Fluke / Hioki / Megger / Metravi / HTC) | 2 Nos. |
| 3 | Earth Resistance Measurement Instrument (0.1 Ohm LC) with Kit | 1 No. |
| 4 | Phase Sequence Meter. | 1 No. |
| 5 | Tong Tester (Fluke / Hioki / Megger / Metravi / HTC) | 1 No. |
| 6 | Battery operated hand drill (B&D / Bosch / Dewalt)) | 2 nos. |
| 7 | Battery operated grinder (B&D / Bosch / Dewalt)) | 2 nos. |
| 8 | Transformer Oil Testing Kit as and when required | 1 No. |

Apart from above, the contractor shall make available the Testing equipment for performing the Half yearly/Yearly Maintenance for VCB/OCB, Transformers , CT, PT, Meters as & when required.

If any other tools are felt necessary for execution of the work, then the same shall be arranged by the contractor at their cost.

| Tools | | |
|---------|--|-------------|
| Sr. No. | Description | Quantity |
| 1 | Double end open Spanner from size 6 - 7 to 30 – 32 size 9 (metric) | 2 Sets |
| 2 | Double end Ring Spanner from size 6 - 7 to 30 – 32 size 9 (metric) | 2 Sets |
| 3 | 6 - 7 to 30 – 32 size (metric) set | 2 Sets |
| 4 | Adjustable Wrenches (12 inch) | 2 Sets |
| 5 | Hydraulic Crimping Tool | 2 Sets |
| 6 | Allen Keys Set | 2 Sets |
| 7 | Tubular Spanner Set | 2 Sets |
| 8 | Star Screw Driver Set | 2 Sets |
| 9 | Screw Driver Set | 2 Sets |
| 10 | Hammers each (1 lb. & 2 lb.) | 2 Sets each |
| 11 | 15000V grade Hand Gloves. | 4 Pairs |
| 12 | Torque Wrench Set | 2 Sets |
| 13 | High Voltage Discharge Rod | 2 Sets |
| 14 | Dual mode Air Blower (Normal and Heating Mode) | 2 Nos. |
| 15 | Safety Belt | 2 Nos. |
| 16 | Emergency Lights | 3 Nos. |
| 17 | Cable Jointing Kit (Gas Bottle & Burner) | 1 No. |
| 18 | Spade | 4 No. |
| 19 | Aluminium Ladder as per site requirement | 2 No. |
| 20 | RCC Breaker M/C with Drill Bit | 1 No. |
| 21 | Drill M/C with Drill Bit | 2 No. |
| 22 | Pliers to every Electrician & Wireman | |
| 23 | Line Tester to every Electrician & Wireman | |
| 24 | Test lamps to every Electrician & Wireman | |
| 25 | Torches to every Electrician & Wireman | |
| 26 | First Aid Kits at Substation (3 Nos.) | |

10. Deployment of Maintenance Staff:

The Contractor shall have to deploy Supervisor who has deal with DPA related to technical & administrative matters. The contractor shall have to deploy following minimum Engineering Staff, Skilled Staff & Supervisory Staff as per roster given hereunder. However, in case of exigency, the during AMC the Contractor shall deploy more manpower to reduce the down time. The following man power is to be deployed.

| POST | W/O | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT |
|---------------------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SUPERVISOR | | | | | | | | | | | | | | |
| Sup-1 | MON | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 2 | 2 | 2 | 2 | 2 |
| Sup-2 | TUE | 1 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 |
| Sup-3 (AO Bldg.) | WED | G-AO | G-AO | W | G-AO | G-AO | G-AO | G-AO | G-AO | G-AO | W | G-AO | G-AO | G-AO |
| Sup-4 (R) | THU | 2 | 2 | G-AO | W | 3 | 3 | 3 | 1 | 1 | G-AO | W | 3 | 3 |

| ELECTRICIAN | | | | | | | | | | | | | | |
|----------------------------------|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|------|------|
| POST | W/O | MON | TUE | WED | THU | FRI | SAT | SUN | MON | TUE | WED | THU | FRI | SAT |
| GOPALPURI | | | | | | | | | | | | | | |
| Elect.-1 | MON | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 2 | 2 | 2 | 2 | 2 |
| Elect.-2 | TUE | 1 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 3 | 3 | 3 | 3 |
| Elect.-3 | WED | 2 | 2 | W | 3 | 3 | 3 | 3 | 3 | 3 | W | 1 | 1 | 1 |
| Elect.-4 (R) | THU | 3 | 3 | 3 | W | 1-AO | 1-AO | G-G | 1 | 1 | 1 | W | 2-AO | 2-AO |
| AO BLDG. | | | | | | | | | | | | | | |
| Elect.-5 | FRI | 1 | 1 | 1 | 1 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 |
| Elect.-6 | SAT | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 | 1 | 1 | W |
| WIREMAN | | | | | | | | | | | | | | |
| GOPALPURI | | | | | | | | | | | | | | |
| Wireman-1 | MON | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 2 | 2 | 2 | 2 | 2 |
| Wireman-2 | TUE | 1 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 3 | 3 | 3 | 3 |
| Wireman-3 | WED | 2 | 2 | W | 3 | 3 | 3 | 3 | 3 | 3 | W | 1 | 1 | 1 |
| Wireman-4 (R) | THU | 3 | 3 | 3 | W | 1-AO | 1-AO | G-G | 1 | 1 | 1 | W | 2-AO | 2-AO |
| AO BLDG. | | | | | | | | | | | | | | |
| Wireman-5 | FRI | 1 | 1 | 1 | 1 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 |
| Wireman-6 | SAT | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 | 1 | 1 | W |
| HELPER | | | | | | | | | | | | | | |
| GOPALPURI | | | | | | | | | | | | | | |
| Helper-1 | MON | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 | 1 |
| Helper-2 | TUE | 2 | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 3 | 3 | 3 | 3 |
| Helper-3 | WED | 1 | 1 | W | 3 | 3 | 3 | 3 | 3 | 3 | W | 2 | 2 | 2 |
| Helper-4 | THU | 3 | 3 | 3 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 |
| Helper-5 | FRI | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 3 |
| Helper-6 | SAT | 1 | 1 | 1 | 1 | 1 | W | 3 | 3 | 3 | 3 | 3 | 3 | W |
| Helper-7 (R) | SUN | 3 | 3 | 3 | 3 | 3 | 3 | W | 2 | 2 | 2 | 2 | 2 | 2 |
| AO BLDG. | | | | | | | | | | | | | | |
| Helper-8 | MON | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 | 1 |
| Helper-9 | TUE | 2 | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 2 | 2 | 2 | 2 |
| Helper-10 | WED | 1 | 1 | W | 2 | 2 | 2 | 2 | 2 | 2 | W | 1 | 1 | 1 |
| Helper-11 | THU | 2 | 2 | 2 | W | 1 | 1 | 1 | 1 | 1 | 1 | W | 2 | 2 |
| Helper-12 (R) | FRI | 1 | 1 | 1 | 1 | W | G-G | G-G | 2 | 2 | 2 | 2 | W | G-G |
| OFFICE CLERK AT GOPALPURI | | | | | | | | | | | | | | |
| Office Clerk | SUN | G | G | G | G | G | G | W | G | G | G | G | G | G |

Note: - The contractor shall deploy the man power along with the relievers as per the credential requirement and the reliever will be common for AO Building and Gopalpuri. However, DPA may re-deploy any of the staff between these two locations at its discretion.

The deployment of man power will be in three shifts on 24X7 basis as per duty roster given above. In case of any staff is proceeding on leave the contractor shall manage the shift either on OT or otherwise. Further, for any reason if any staffs resigned, the contractor shall provide the replacement within 15 days, failing which double the penalty as mentioned in clause 16 (c) will be imposed.

The shift will operate in 3 shift basis (24 hrs. a day) & 365 days a year. The normal shift timings are as follows:

1st shift – 07:00 to 15:00
G – General Shift

2nd Shift – 15:00 to 23:00
G-G – General shift for Gopalpuri

3rd shift - 23:00 to 07:00
AO – AO Building

11. Operation:

- a) Arrival & Departure of Contractor's Staff shall be well-planned to up-keep the maintenance requirement intact round the clock
- b) As mentioned above, full strength of the AO Building and Gopalpuri Staff shall be deployed for the above timings. However, in case of non-requirement of any Staff at AO Building, they shall be deployed at Gopalpuri.
- c) On Sundays & Holidays, if require, 01 Electrician & 01 Technician will be deployed at AO Building. Otherwise, they shall be deployed at Gopalpuri.
- d) Supervisors at both the sites shall physically monitor the physical activities including presence of Staff at site during their duty hours.
- e) Round the clock vigil should be kept for the power supply at Guest House, Chairman's & Dy. Chairman's Bungalows & Hospital. In case of any action is required to Switch On the power from PGVCL or DG Set, the same shall be done almost immediately taking all safety & precautions.
- f) Staff mentioned in the above Roster, shall be posted as per their location. Separate attendance register shall be maintained for each location along with separate Daily progress report book with signature of individual person.
- g) Contractor should provide Attendance Register at the Gopalpuri Colony Substation and Electrical Room for marking the attendance for both in/out of their entire staff and print out of daily attendance shall be submitted to DPA's Site In-Charge.
- h) General staff shall be stationed at Gopalpuri Colony Substation.
- i) The posting of the Supervisor Staff can be changed as per the requirement of EIC or his nominee.
- j) The contractor shall maintain 01 Set of Android Phones round the clock for Gopalpuri Township and One set for A.O. Building for proper communication between department and the Contractor at the cost & responsibility of the Contractor.
- k) The Contractor shall provide his office set up with table & Chairs, 01 Cupboard and latest model Computer with Xerox-cum-Printer. Hard copy of all the documents shall be submitted to DPA & not in hand written document & hand over the same to DPA. The office setup should be done after issue of Work Order.

12 Qualification Requirement of Staff

| Sr. No. | Designation | Qualification |
|---------|--------------|---|
| 1 | Supervisor | Diploma in Electrical Engineering with 5 years experience on 11/0.433 KV installations and HT & LT overhead electrical network. |
| 2 | Electrician | ITI Certification in Electrician Trade with at least 2 years' experience on HT/LT Electrical Installation. |
| 3 | Wireman | ITI Certification in Wireman Trade with at least 2 years' experience on wiring. |
| 4 | Helper | Worked as Helper, in any electric Site with 01 year experience. |
| 5 | Office clerk | B.Com Having knowledge of computer (MS Word / Excel/Power Point Presentation and SAP) office work. Also maintained hard copy of all required registers. |

During the currency of the contract, the duties and responsibilities of staff to be deployed as under:

- a) Supervisor:** The Supervisor on behalf of Contractor at the site of work specified in the Tender i.e. Gopalpuri Township and A.O. Building.
- i. The Supervisor shall receive complaints & Record the same in the respective Complaint Register with all details like Complaint from (Name or Location), type of Complaint, Time of Complaint, Attended by and Time of Attending of Complaint etc.
 - ii. The Supervisor shall depute the staff to attend the respective complaints depending on the priority. Priority may be given as specified i.e. 11 KV Incoming & outgoing feeders, 11 KV HT service connections, if any, water towers, HT overhead line, DG Set, complaint of Chairman & Dy. Chairman Bungalows as directed by Engineer-in-Charge.
 - iii. Also, operation of LT & HT Indoor Sub-station's switchgears and recording & issue of Line clearance & normalization of HT/LT Electrical Shutdown & breakdowns works as per DPA procedures. The recording of the vehicles running & monitoring shall be controlled by Supervisor.
 - iv. He should be in touch with any new work taking place at his site and give the report of the same to EIC or his nominee of DPA. After completion of the work & taken over by DPA in all respect, the further maintenance should be planned of the site by the Supervisor.
 - v. Supervisor daily report to concern EIC or Area Supervisor / Foreman, DPA for day to day work.

b) Electrician :

- i. Work on Poles, DP/Four Pole Structures, HT & LT Cables, and Sub-Station Equipment, Lighting etc., as directed by the Site Engineer / Site Supervisor of Firm and shift engineer/In-Charge of DPA.
- ii. Attend the complaints related to Pump House, DG Sets, HT /LT Cables & Panel Boards, Control Schemes, Lightings, Qtrs., Non-Residential Buildings etc. as directed by Site Supervisor/Site Engineer (Contractor) or Shift-in-Charge (DPA).

c) Wireman:

- i. Trimming & cutting of tree branches falling on HT /LT overhead lines.
- ii. The works entrusted by Site Supervisor/Site Engineer during shift to be attended by him.
- iii. To Assist for repair/rectification works related to Compact Substations, HT/LT cables, DP/FP Structures, Panels, Transformers, Cables, House Wiring, Street Lighting etc. and any other work entrusted by Site Supervisor/Site Engineer during shift.

d) Helper :

Helper shall assist Electrician/Wireman in their work and time to time any work assigned by Supervisor during shift.

e) Office Clerk

Office clerk shall perform duty for maintaining the document, attendance register, other statutory register, staff profile register, documentation etc. or as directed by EIC. Office clerk having good proficiency in Computer. Shall be posted in day shift only.

Note: The duties and responsibilities mentioned above is illustrative only. The staff engaged by the contractor should following the instructions given by the EIC from time to time.

13. Responsibilities of Contractor:

- i) The Contractor must engage trained, qualified and experienced Supervisors, Electricians and Wiremen having relevant License/Permit to handle electrical equipment for smooth, safe & trouble free operation. The core personnel of the contractor including engineers, so deployed, shall have qualification & relevant experience and preferably in a position to rectify defects, developed during the maintenance period to minimize the down time. The deployed personnel of Contractor shall be well conversant with Indian Standards, Indian Electricity Rule & Acts as applicable and should have knowledge of Electrical & Industrial Safety practices.
- ii) The Contractor has to submit the Aadhar Card/Election Card, Educational & Experience Certificates of his deployed personnel along with Profile of Staff. In case of Helper, the Aadhar Card/Election Card shall be submitted along with Profile of Staff. No person below 18 years should be deployed for Maintenance Contract.
- iii) The Contractor shall deploy their Supervisor along with skilled Electrician and skilled & unskilled Staff such as Wireman & Helper etc. In natural calamities such as cyclone, heavy rain, warning situations etc., the Contractor shall plan & make their own arrangement for safety and bear all the costs associated the arrangements.

- iv) The Contractor must remove immediately the workman, who is incompetent, disobedient, habit of stealing & sabotage, in-disciplined, misconduct, negligence in duty, suppression of facts, deliberate mishandling of machine & equipment, professional in-competent etc.
- v) If any damage to any machinery or equipment or installation of DPA due to negligence, ignorance or malafide intention caused by the workmen, engaged by the Contractor & is noticed by DPA personnel, the same shall be made good at the cost of the Contractor within a reasonable period of time acceptable to DPA, failing which the cost of the damages assessed by DPA shall be deducted from the bill of the Contractor.
- vi) All individuals, engaged in the performance of the Contractor's obligations under this contract, shall be the employees of the Contractor and their working hours, rates of compensation & all other matters relating to their employment, shall be determined solely by the Contractor in accordance with the applicable labour laws & regulations. The Contractor shall be solely responsible for employment policies that specify the requirements for staff working under them and such policies are to be consistent & in conjunction with the existing applicable labour laws.
- vii) During the period of the Contract, if the Contractor intends to induct new workman or make alterations in their grade, the Contractor shall communicate the same for acknowledge to DPA.
- viii) The Contractor shall employ skilled Supervisor in each shift for overall co-ordination of operation & maintenance of the entire site for different systems/equipment's and supervising during shifts. He will be responsible for all the functions and co-ordinate with shift –in-charge of DPA posted in each shift or Engineer-in-Charge for smooth execution of the maintenance contract.
- ix) The Supervisors attached to maintenance must be conversant with the technology of various systems, equipment, machines & systems and have to co-ordinate with the operating personnel for smooth operation. They should be vigilant & should promptly respond to any operational requirements.
- x) During operation, if any abnormality, defect/fault is noticed, the same shall be promptly communicated and remedial steps must be taken under intimation to the Shift-in-charge of DPA. The contractor shall place a suitable mechanism for rectification of problems so that delay in operation can be avoided.
- xi) The shift in charge/Engineers/Supervisors of the Contractor, associated with maintenance, shall plan & co-ordinate all the maintenance activities including pre-operational checks. Also, necessary interaction for operational requirements should be done in close co-ordination with Shift-in Charge/ Engineer-in-Charge of DPA.
- xii) The Contractor shall keep and maintain the records of day-to-day maintenance activities, i.e. material consumption, work carried out, attendance of labour, labour Wages and submission of the same to Engineer-in-Charge at the time of RA Bill.
- xiii) Stoppages during operation or any type of abnormalities including adverse operating condition or characteristics, bypass of safety devices, shall be recorded and shall be intimated to Shift-in Charge/Engineer-in Charge with follow-up action.

14. DOCUMENTATION

Substation Equipment's parameters should be recorded in daily logbooks. Separate log books will be prepared for separate equipment. Contractor shall maintain individual History Record for all critical equipment & other safety related items. This history record shall have all the details of work carried out on day-to-day, monthly, quarterly, half yearly and yearly basis.

- a. Detailed inventory records like materials movement, material consumption, materials disposed etc. also should be maintained. In all documents, for each work, contractor should get signature from Engineer In-charge (Electrical) or his nominees.
- b. Following Register is to be strictly maintained by Contractor during maintenance contract period as the Contract Labour (Regulation & Abolition) Central Rules, 1971.
 - i. Muster Roll Register Form No. : 16.
 - ii. Register of Wages i.e. Form No. : 17.
 - iii. Register of overtime i.e. Form No. : 23.
 - iv. Register of advance pay i.e. Form No. : 22.
 - v. Register of accident, major accident & dangerous occurrence i.e. Form No. : 29
 - vi. Register of Workman employed by Contractor i.e. Form No. : 13.
 - vii. Profile of staff deployed for AMC.
 - viii. Consumable & material handling registers.
 - ix. Tools and Plants.
 - x. Complain register for Gopalpuri area.
 - xi. PGVCL Power Failure Register.

All the documents, prepared by the contractor, shall be the property of DPA. The contractor will not share the information contained in the above said Logbook Registers with any outside person without written permission of EIC.

The contractor should hand over the Logbooks and Registers to DPA at the time of completion of contract period.

15. Uniform & PPE:

The Contractor has to provide PPE to all the employees, deployed for Maintenance Contract. Also, all the employees of Contractor shall wear the uniform & PPE while on duty. The firm shall provide identity card to his employees. Wherever is required, the same shall be produced to security or authorized person of DPA.

The PPE kit shall be provided by Contractor to his deployed staff during Maintenance contract

16. PENALTIES:

a) Shortfall of consumables

The consumable material should be deposited in the store and same should be maintained & re-couped every month as per actual quantity given in Clause-8. In case the contractor fails to maintain requisite quantity of consumables as mentioned in Clause-8, penalty at the rate of Rs. 700/- per week per item and part thereof will be recovered from the payment of contractor R.A Bill till the materials is deposited by the contractor.

b) Tools and Tackles

In case during the inspection if any instruments mentioned above under clause no. 9, which required to be kept by the contractor during the contract period as per the tender condition, are not available, penalty at the rate of Rs. 1000/- per instrument per day and Rs. 500/- per tool per day and part thereof will be recovered from the payment due to the contractor till such instrument/tools are brought back by the contractor.

c) Shortfall of staff

If any manpower, mentioned at Clause No. 10 of Scope of Work, does not report on any day then the same shall be treated as non-deployment of staff on that day/s. In that case, the penalty amounting to Rs. 1200/- per day for Supervisor, Rs. 1000/- per day for Electrician, Rs. 800/- per day for Office Clerk, Rs. 700/- per day for Wireman and Rs. 500/- per day for helper, whosoever is absent on that day, shall be imposed on the contractor.

d) Restoration in HT power supply

In case if the contractor fails to restore the HT power supply within stipulated time period of 2 hrs. after intimation (through mobile/text message/whatsapp/email or through any other mode of communication which will be subsequently recorded in site order book also) except for major breakdown due to underground cable fault/ transformer fault, PGVCL/GETCO incomer failure the penalty of Rs. 5000/- per hour and part thereof will be levied for the period of first 24 hrs. after which double the amount will be charge uptill the restoration of power.

e) Restoration in LT power supply

In case if the contractor fail to restore the LT power supply within stipulated time period 02 hrs. after intimation (through mobile/text message/whatsapp/email or through any other mode of communication which will be subsequently recorded in site order book also) except for major breakdown due to underground cable fault/ transformer fault, PGVC/GETCO incomer failure the penalty of Rs 5000/- per hour and part thereof will be levied for the period of first 24 hrs. after which double the amount will be charge till the restoration of power.

f) Vehicle (2 Wheeler)

The vehicle (2 wheelers – 3 nos. – Model 2024-25) is required to be provided by the contractor from the day one of the contract period and should be always be stationed 2 nos. at Gopalpuri Substation and 1 no. at AO Building. If the vehicle is not made available/not in working condition on any day, penalty at the rate of Rs 500/- per day per vehicle and part thereof for first 24 hrs. will be levied after which double the amount will be charge till the vehicle is ready and available at site. It may be noted that in case of any failure of the vehicle, the contractor is required to make alternative arrangement of the same. Any type of reimbursement will not be reimbursed or paid by DPA.

g) Attending the complaints

The contractor is required to attend the complaint within 30 minutes from the time of receipt of the complaint by way of (through mobile/text message/whatstap/email or through any other mode of communication which will be subsequently recorded in site order book or complaint register, failing which penalty of Rs. 500/- per such delay will be imposed.

h) Non-use of PPE by the staff engaged by the contractor

In case it is noticed that any of the staff engaged by the contractor are working on the site without PPE, a penalty of Rs. 1000/- per person per incident will be levied on the contractor.

i) Non submission of documents.

Any delay in the submission of the documents mentioned at clause no. 14, penalty of Rs. 1000/- per document per day and part thereof will be levied till completion of complete documents.

j) Time line for find of cable faults

The maximum time allowed for finding fault and fixing the same is 12 hours for both LT cable and HT cables failing which Rs. 5000/- per fault per hour and part thereof will be levied.

k) In- completion of work & Non- compliance of Safety Norms.

If during Inspection if any work carried out is of temporary in nature and if the work done without following safety norms, then penalty of 2000/- per incident will be levied on the contractor. (work such as temporary Cable joint/ excavation not properly covered / Cleaning of vegetation around the FP/DP/Panel etc. / Tower / Distribution panel door damage or not closed / junction box open etc. all this will come under poor workmanship).

l) Non-functioning of DG Set

In the event of any requirement, if DG set is found to be non-functioning, it will be considered as poor maintenance of the contractor and penalty of Rs. 1000/- per hour and part thereof will be levied till the DG set starts functioning. The DG set should function in auto mode.

m) Taking shutdown without work permit

It is found that the contractor has taken up the specific work as envisaged in the work permit form and for the purpose of shutdown a without obtaining the permission in the Work Permit Format, a penalty of Rs. 10,000/- per such incident will be levied.

n) Not taking line clearance

While carrying out maintenance work at sub stations and downstream, line clearance is invariably required to be obtained from the concerned official not below the rank of Jr. Engineer failing which a penalty of Rs. 10,000/- per such incident will be levied.

o) Failure in the part of any staff engaged by the contractor to follow the written orders of the EIC will attract penalty of Rs. 1000/- per such instructions.

p) Non-availability / Non- working of Mobile.

The communication system (Mobile Phone) should be available 24x 7 in working condition, the contractor site-in-charge / Electrician should receive the phone call and immediately respond the call before leaving the site it should be noted in the site complain register time & message detail (area from complain received) However, if for any reason the site office phone is out of order immediately it should be repaired or replaced by new phone at site if the phone is not available at site for more than 08hr's then penalty @ 1000/-hour will be imposed till the availability of the phone at site.

q) For- Part-D (Hiring of Vehicle)

In case if any vehicle doesn't report at site as per their respective reporting time double the quoted amount will be levied.

17. DPA will not be responsible for death, accident or injury to the Contractor's employees engaged by them, which may arise in the course of their duty at DPA's premises, nor shall DPA be responsible & be liable to pay damages or compensation to such persons or to third parties. The Contractor shall at all times indemnify and keep DPA indemnified against all claims which may be under the Workmen's Compensation Act, 1923, or any statutory modifications thereof or otherwise, for or in respect of any damages or compensation payable in consequence of any accident or injury sustained by any workman or other person/person at the Centre or premises, building, equipments etc. is attributable to the Contractor or his workmen, such damages shall be made good by the Contractor.

18. Overhead lines maintenance work:

- a. All kind of faults as and when the complaint will be received with prioritization of the requirement of DPA.
- b. Removal/replacement of damaged ACSR conductor/ABC Conductor and its accessories on LT overhead lines including stringing of conductor, jumpering, binding etc., as directed by Engineer-in-Charge.
- c. Fixing, connecting, commissioning of ICDP/ICTP/Switches/Light Switches/MCCBs of various capacities with suitable MS Clamp Bolts, Nuts etc., as directed by EIC.
- d. Painting of Poles/Structures/Towers including cleaning, scraping, wire brushing etc. for surface preparation as required
- e. Maintenance/Repairing of HT Panels, HT over head lines/UG cables are under the scope of the contractor.

19. RESIDENTIAL BUILDINGS AND NON- RESIDENTIAL BUILDINGS MAINTENANCE WORKS

The complaints on daily basis shall be registered in the complaint register which is to be maintained at both sites including the disposal of the complaint with date and time alongwith the materials with their quantities, quarter nos./locations to be recorded in the registrar, which will be endorsed by the concerned Junior Engineer/Asstt. Engineer in the next day or in any day as per convenient.

20. Vehicle:

For transportation of shift staff, loading & unloading the material for which contractor shall arranged the own arrangement of vehicle at their own cost.

21. **OEM Visit :** - Contractor shall arrange OEM visit for checking and giving the recommendation for any action to be taken for hassle free operation. The visit shall be within three months of the awarding of the contract and again after one year.

Contractor shall take joint visit with DPA; OEM / Authorize Service Centre engineers for assessment for all type spares accordingly purchase the genuine spares for carry out the Plan / Preventive / Breakdown maintenance, cost of such spares parts (other than Part-B & Part-C) shall be reimbursement by DPA on production documentary evidence & actual invoice.

OEM Engineer / Authorize Service Centre Engineers, service charges, accommodation, Transportation is under the scope of contractor.

22. During the currency of the contract, the contractor is required to assess the condition of the transformers by conducting Dissolved Gas Analysis (DGA) technique. In this regard, the results of the DGA for each transformer should be built into a data bank and based on the trend of the gas level over a period of time as well as the faults, if any, that the transformer had suffered, an analysis may be done to establish the exact nature of the incipient fault that may be developing in the transformer. The DGA shall be done through any approved NABL accredited laboratory.
23. All substations are required to be cleaned and moped twice in a day. Once in every month all the unwanted material from the wall and ceiling should be removed.
24. The earthing work (replacement/new) under item no. 30 of Part-B to be supplied by the contractor shall be done at residential and non-residential buildings as directed by Engineer in Charge.
25. Repair and maintenance of sound and light system fixed on the walkway around ground covering hospital area and around running track inside ground as well as inside Multipurpose hall and staff club.
26. Any electrical work related to maintenance for improvement, shall be completed by the contractor at their own cost as will be directed by the Engineer Incharge or AE (E).
27. Site Visit
- The interested party, at his own cost & responsibility is required to visit and examine the site of work and its surroundings and obtain all information that may be necessary for preparing the offer.

SD/-

Seal & Signature
Contractor

Executive Engineer (Elect.)
Deendayal Port Authority

Annexure - A**TENTATIVE LIT OF BUILDING UNDER AMC**

| Non Residential building | |
|---------------------------------|--------------------------------------|
| 1 | HOSPITAL |
| 2 | STAFF & OFFICERS' CLUB |
| 3 | SUBSTATIONS |
| 4 | AUTO GARAGE |
| 5 | ESTATE OFFICE |
| 6 | BVM SCHOOL/KENDRIYA VIDAYALAYA |
| 7 | SHOPPING CENTRE |
| 8 | NAVARATRI TEMPLE |
| 9 | PARKS |
| 10 | GYMNASIUM |
| 11 | SVP HALL |
| 12 | A. O. BUILDING |
| 13 | GUEST HOUSE |
| 14 | WATER TOWERS |
| 15 | SEWAGE PLANTS |
| 16 | GATES |
| 17 | LIGHTING SYSTEM OF ALL THE LOCATIONS |
| 18 | PLAY GROUNDS |
| 19 | OXYGEN GAS PLANT |
| Residential building | |
| 1 | CHAIRMAN BUNGALOW |
| 2 | DY. CHAIRMAN BUNGALOW |
| 3 | ALL A TYPE QUARTERS |
| 4 | ALL B TYPE QUARTERS |
| 5 | ALL C TYPE QUARTERS |
| 6 | ALL D TYPE QUARTERS |
| 7 | ALL E TYPE QUARTERS |
| 8 | ALL F TYPE QUARTERS |
| 9 | FCI Quarter -212 Total |
| 10 | DLB Quarters-170 Total |

Note:

Any left out assets/equipment/area required to be maintained and any new area/equipment/asset procured during the currency of the contract are required to be maintained and operated by the contractor under this contract.

TENTATIVE LIST OF EQUIPMENTS

| Sr. No. | Name of Equipment | Capacity | Make | Qty. |
|---|--------------------------------------|---|---------------------------------------|------|
| THE BROAD DETAILS OF EQUIPMENTS AT SUBSTATION-1 GOPALPURI | | | | |
| 1 | Transformer | 11/0.433 KV, 500 KVA | Crompton Greaves | 1 |
| 2 | Transformer | 11/0.433 KV, 500 KVA | Jayshree Power Volt | 1 |
| 3 | Transformer | 11/0.433 KV, 250 KVA | Kirloskar | 1 |
| 4 | Out Door Mounted Transformer | 11/0.433 KV, 250 KVA | Kirloskar | 1 |
| 5 | VCB | 12 Kv, 350 MVA to 630A | Crompton Greaves/ Southern Switchgear | 7 |
| 6 | LT Panel, 16 Way | Up to 415 Volts, 2000 A, | Shiv Shakti Enterprise | 1 |
| DETAILS OF EQUIPMENTS AT SUBSTATION-2 GOPALPURI | | | | |
| 1 | Transformer | 11/0.433 KV, 500 KVA | Voltamp | 1 |
| 2 | Transformer | 11/0.433 KV, 250 KVA | Kirloskar | 1 |
| 3 | VCB | 12 KV, 350 MVA to 630A | Crompton Greaves/ Southern Switchgear | 5 |
| 4 | 16 Way LT Panel | Up to 415 Volts, 2000 A, | Shiv Shakti Enterprise | 1 |
| 5 | 3 Way LT Panelat Old S/S | Up to 415 Volts, 2000 A, ACBs up to 1000 A, SFU up to 125 A | Crompton Greaves | 1 |
| 6 | 11 Way LT Panelat old S/S | Up to 415 Volts, 2000 A, | | 1 |
| 7 | 16 Way LT Panelat Hospital | Up to 415 Volts, 2000 A, | | 1 |
| 8 | 125 KA DG Set | At Hospital & Guest House | Kirloskar | 2 |
| 9 | 250 KVA Compact Substation | | Voltamp | 2 |
| DETAILS OF EQUIPMENTS AT A.O Building SUBSTATION 11/0.433 KV, 500 KVA | | | | |
| 1 | RMU Unit | | | 2 |
| 2 | Indoor type distribution transformer | 11/0.433 KV, 500 KVA | T&R | 2 |
| 3 | Distribution Panel | | T&R | 2 |
| 4 | Transformer | 250 KVA | Kirloskar | 1 |
| 5 | LT Panel 9 way to 12 Way | ---- | ---- | 5 |
| 6 | 400 KVA DG Set | | Greaves Cotton | 1 |
| 7 | 100 KVA DG Set | | Greaves Cotton | 1 |
| <p>Note: - The above equipments details are tentative. However scope of equipments (under AMC) covers all the Street Light Poles, Dome Light Pole, HT/LT O/H, ABC O/H LT, N/W, Earthing Pits, etc. Any left out assets/equipment/area required to be maintained and any new area/equipment/asset procured during the currency of the contract are required to be maintained and operated by the contractor under this contract.</p> | | | | |

Sd/-

Seal & Signature
Contractor

Executive Engineer (Elect.)
Deendayal Port Authority

Bill of Quantities (BOQ)

PART - "A" : (Maintenance Contract)

| Sr. No. | Description | Qty | Unit | Rate in Rs. per Month | Amount inRs. |
|---|--|------------|-------------|------------------------------|---------------------|
| 1 | Annual Maintenance Contract for electrical installation of AO Building and Gopalpuri Colony including FCI and DLB Colony with all office buildings, gates, etc. as per scope of the tender, specifications and other terms and conditions as directed by Engineer-in-Charge. | 24 | Month | | |
| Total (Part - A) | | | | | |
| <p>Sd/-</p> <p>Seal & Signature of Contractor</p> <p>Executive Engineer (Elect.) Deendayal Port Authority</p> | | | | | |

PART - "B" (Supply of Material)

| Sr. No. | Description | Qty. | Unit | Rate | Amount |
|---------|--|------|------|------|--------|
| 1 | Supply of ISI marked 1.1 KV grade Aerial Bunched Cable having XLPE insulation (Three Power Core) with stranded compact circular aluminium conductors twisted over an insulated aluminium alloy messenger wire and its associated ancillary materials as PGVCL/GETCO/UGVCL/DGVCL/MGVCL approved manufacturer or vendor. | | | | |
| | a) 3 X 25 + 1 X 16 + 1 X 25 Sq. mm. | 500 | Mtr. | | |
| | b) 3 X 50 + 1 X 16 + 1 X 35 Sq. mm. | 500 | Mtr. | | |
| 2 | Supply at Site 11 KV grade HT XLPE (E) steel armoured aluminium conductor cable Sheath of approved make of the Tender. | | | | |
| a | 3 C X 70 sq.mm XLPE , AL cable. | 100 | Mtr. | | |
| b | 3 C X 150 sq.mm XLPE, AL Cable. | 100 | Mtr. | | |
| 3 | High quality single core twin insulated unsheathed cable with copper conductor in voltage grade 1.1 KV house wiring wire as per approved make list of Tender. | | | | |
| a | 1.5 Sq. mm. PVC copper wire (FRLS Coil of 90 Mtr.) | 40 | Roll | | |
| b | 2.5 Sq. mm. PVC Copper wire (FRLS Coil of 90 Mtr.) | 40 | Roll | | |
| c | 4 Sq. mm. PVC Copper wire (FRLS Coil of 90 Mtr.) | 20 | Roll | | |
| 4 | PVC Insulated Aluminium Service Wire as per PGVCL/GETCO/UGVCL/DGVCL/ MG VCL approved manufacturer or vendor. | | | | |
| a | 4 Sq. mm. PVC insulated, PVC sheathed Al Conductor service wire (90 Mtr. Coil) | 24 | Roll | | |
| b | 6 Sq. mm. PVC insulated, PVC sheathed Al Conductor service wire (90mtr coil) | 20 | Roll | | |
| 5 | PVC Flexible cable for 1.1KV grade as per DPA approved make wherever available; otherwise, PGVCL/GETCO/UGVCL/DGVCL/MGVCL approved manufacturer or vendor. | | | | |
| a | 1.5 sq mm x 4 core PVC Round Copper Flexible Cable of 1.1KV grade (90 Mtr. Roll) | 18 | Roll | | |
| b | 2.5 Sq. mm. X 4 Core PVC Round Copper Flexible Cable of 1.1 KV grade (90 Mtr. Roll) | 18 | Roll | | |
| c | 4 Sq. mm. X 4 Core PVC Round Copper Flexible Cable of 1.1 KV grade (90 Mtr. Roll) | 6 | Roll | | |

| Sr. No. | Description | Qty. | Unit | Rate | Amount |
|---------|---|------|------|------|--------|
| 6 | PVC Insulated Aluminium Service Wire as per PGVCL/GETCO/UGVCL/DGVCL/ MGVCL approved manufacturer or vendor. | | | | |
| a | 4 Sq. mm. PVC insulated, PVC sheathed Al Conductor service wire (90 Mtr. Coil) | 24 | Roll | | |
| b | 6 Sq. mm. PVC insulated, PVC sheathed Al Conductor service wire (90mtr coil) | 20 | Roll | | |
| | | | | | |
| 7 | PVC Flexible cable for 1.1KV grade as per DPA approved make wherever available; otherwise, PGVCL/GETCO/UGVCL/DGVCL/MGVCL approved manufacturer or vendor. | | | | |
| a | 1.5 sq mm x 4 core PVC Round Copper Flexible Cable of 1.1KV grade (90 Mtr. Roll) | 18 | Roll | | |
| b | 2.5 Sq. mm. X 4 Core PVC Round Copper Flexible Cable of 1.1 KV grade (90 Mtr. Roll) | 18 | Roll | | |
| c | 4 Sq. mm. X 4 Core PVC Round Copper Flexible Cable of 1.1 KV grade (90 Mtr. Roll) | 6 | Roll | | |
| | | | | | |
| 8 | Supply of 200 mm exhaust fan alongwith louver of 230 V 50 Hz. AC as per approved make list. | 50 | No. | | |
| | | | | | |
| 9 | Supply of 400 mm sweep wall mounted Fan of 230 V 50 Hz. AC as per approved make. | 05 | No. | | |
| 10 | Complete rewinding including bearings of 400 mm sweep wall mounted fan with material and labour. | 05 | No. | | |
| 11 | Supply of Exhaust Fan (300 mm.) of 230 V 50 Hz. AC as approved make. | 20 | No. | | |
| 12 | Complete Rewinding including bearings of 300 mm exhaust fan with material and labour. | 20 | No. | | |
| 13 | Supply of Pedestal Fan (400 mm) of 230 V 50 Hz. AC | 20 | No. | | |
| 14 | Supply of Energy efficient LED Tube Light Fixture complete with accessories with LM-79 and LM-80 certification. | | | | |
| | | | | | |
| a | 20/22 watt 4 feet LED tube light Fixture. | 500 | No. | | |
| b | 36 watt & above 4 feet LED tube light fixture | 500 | No. | | |
| c | 18/15 Watt LED Round/Rectangle/Square recess type Panel LED. | 50 | No. | | |
| d | 12 Watt LED Round/Rectangle/Square recess type Panel Light. | 50 | No. | | |
| e | Pelmet light 3 feet 20/22 watt | 25 | No. | | |
| f | Ceiling mounted LED light 40 watt 2 X2 ft. 4000 K | 25 | No. | | |

| Sr. No. | Description | Qty. | Unit | Rate | Amount |
|---------|--|------------------|-------------------|------|--------|
| g | LED Foot light 3 W | 50 | No. | | |
| h | RGB Flood Light 40 W (IP65, Input 24 V DC) Model – NES-RGB-FL-40 | 50 | No. | | |
| i | Repairing work of RGB Main Panel and its slave panel with complete labour and material. | 5 | No. | | |
| j | Supply & fixing of gardens spike light of 6 to 12 Watt 230 V, 50 Hz AC. | 50 | No. | | |
| 15 | Supply of Energy Efficient 90 W LED street light fixture Complete with accessories with LM-79 and LM-80 Certification. a)90 Watt Road way Luminary. | 15 | No. | | |
| 16 | Supply of Energy Efficient 20 W LED street light (clear white IP-65) with brackets of 230 V 50 HZ AC | 100 | No. | | |
| 17 | Supply of Energy Efficient 35 W LED Street light fixture with Complete accessories (with bracket) with LM-79 and LM-80 Certification. | 400 | No. | | |
| 18 | Supply and fixing of Ahuja make Speaker Model No. GS-6401T alongwith its supporting pip and its hardware. | 10 | No. | | |
| 19 | Repairing of Ahuja make garden speaker model no. GS-6401T | 10 | No. | | |
| 20 | Repairing of Ahuja make Amplifier Model No. Ahuja SPA – 25000 such as its jacks, swtiches, probes, control card and servicing of complete amplifier | 5 | No. | | |
| 21 | Supply & fixing of Bajaj make LED flood light of 30 W Model No. Bajaj Glatt MT 30 W or its equivalent alongwith its protection cage as per site | 50 | No. | | |
| 22 | Supply & fixing of Rope lights by removing the old defective one and inserting new one against the same on meter basis. As and when required on piecemeal basis as per site requirement colours. | 300 | Mtrs. | | |
| 23 | Supply of Energy Efficient 250 W preferably multi-driver LED flood light fixture & Complete accessories with LM-79 and LM-80 Certification. | 50 | No. | | |
| 24 | TP MCCB 'C' Series as per approved manufacturer & Vendor. 100 A 250 A 400 A | 10 10 10 | No. No. No. | | |
| 25 | SP MCB 'C' Series as per approved manufacturer & Vendor. 6 A 20 A 32 A | 100 100 50 | No. No. No. | | |
| 26 | DP Switch as per approved manufacturer & Vendor. 10 A 20 A 40 A | 10 10 10 | No. No. No. | | |

| | | | | | |
|----|--|-------------|-------------------|--|--|
| 27 | DP MCB 'C' Series as per approved manufacturer & Vendor. 16 A 40 A 63 A | 5 5 5 | No. No. No. | | |
| 28 | 3 L Instant Water Geyser (Bajaj/Crompton/V-Guard/Havels) | 5 | No. | | |
| 29 | 15-Litre Storage Geyser (Bajaj/Crompton/V-Guard/Havels) | 5 | No. | | |
| 30 | Laying of cable at sites from 16 sq.mm. to 70 sq.mm. 4 core aluminium conductor armoured cable by excavation including removing of paver block of 1 mtr. deep 300 mm wide after putting a 50 mm carpet layer of sand thereafter laying the cable by providing bricks on both sides on top complete with labour and material on piecemeal basis as per site requirement. Cable will be supplied by DPA. | 4000 | Mtrs. | | |
| 31 | Laying of cable at sites from 95 sq.mm. to 150 sq.mm. 4 core aluminium conductor armoured cable by excavation including removing of paver block of 1 mtr. deep 300 mm wide after putting a 50 mm carpet layer of sand thereafter laying the cable by providing bricks on both sides on top complete with labour and material on piecemeal basis as per site requirement. Cable will be supplied by DPA. | 2000 | Mtrs. | | |
| 32 | Laying of cable after carrying out the HDD work and putting the heavy duty HDPE pipe of 150 mm dia and passing the cable of any size at the road crossing / RCC structure as directed by Engineer-in-Charge. | 50 | Mtrs. | | |
| 33 | Supply of Crompton Greaves Generator 400 KVA generator engine oil of approved grade (API CI4, 15W40) or its equivalent. | 200 | Ltrs. | | |
| 34 | Supply of Crompton Greaves Generator 400 KVA generator oil filter as per original. This includes removal of existing one and fixing of new one at site. | 2 | Nos. | | |
| 35 | Supply of Crompton Greaves Generator 400 KVA generator air filter as per original. | 2 | Nos. | | |
| 36 | Supply of Coolant for Crompton Greaves 400 KVA DG Set as per original. | 100 | Ltr. | | |
| 37 | Supply of Kirloskar make 125 KVA Generator engine oil of approved grade | 300 | Ltrs. | | |
| 38 | Supply of Kirloskar make 125 KVA generator oil filter as per original. | 4 | Nos. | | |
| 39 | Supply of Kirloskar make 125 KVA generator air filter as per original. | 4 | Nos. | | |
| 40 | Supply of Coolant for Kirloskar 125 KVA DG set as per original. | 200 | Ltrs. | | |
| 41 | Supply of Greaves Cotton make 100 KVA Generator engine oil of approved grade | 200 | Ltrs. | | |

| | | | | | |
|----|--|-----|-------|--|--|
| 42 | Supply of Greaves Cotton make 100 KVA generator oil filter as per original. | 2 | No. | | |
| 43 | Supply of Greaves Cotton make 100 KVA generator air filter as per original. | 2 | No. | | |
| 44 | Supply of Coolant for Greaves Cotton make 100 KVA generator as per original. | 100 | Ltr. | | |
| 45 | Supply and fixing of maintenance free battery as per the capacity requirement as directed. | 4 | No. | | |
| 46 | Complete servicing of DG sets installed at AO Building and Gopalpuri with labour as directed | 4 | No. | | |
| 47 | Fault finding and rectification work in electrical panel DG sets by hiring OEM engineer at site complete with its labour and material. In case of any breakdown contractor has to deploy OEM engineer within 48 hours. | 2 | Visit | | |
| 48 | Topping up of transformer oil as and when required and as directed by Engineer in Charge. This also includes replacement of silica gel. | 6 | No. | | |
| 49 | 20 Watt LED Gate Light for Home Gate as per site dimension | 20 | No. | | |
| 50 | Supply & fixing of bollard light of 9 watt with 1 Mtr. Pipe and flanges (Flourish/Philips/Syska make or its equivalent) | 10 | No. | | |
| 51 | Supply & fixing of wall light 3 to 5 watt. | 50 | No. | | |
| 52 | Sintex 4 way junction box | 150 | Nos. | | |
| 53 | Street light adjustable stand for 36 watt | 50 | Nos. | | |
| 54 | Cable packing tie 150 mm | 2 | Box | | |
| 55 | Cable packing tie 250 mm | 4 | Box | | |
| 56 | Bajaj make LED Flood Light of 500 watt, 230 V, 50 Hz. for Cricket Ground as per original | 15 | Nos. | | |

TOTAL OF PART-B

Seal & Signature of
Contractor

Sd/-
Executive Engineer (Elect.)
Deendayal Port Authority

PART - "C" : (Supply of material)

| Sr. No. | Description | Qty | Unit | Rate | Amount |
|----------------|---|------------|-------------|-------------|---------------|
| | Supply of following electrical accessories of approved make as directed by Engineer-in-charge. | | | | |
| 1 | 6 A 1 - way Piano Switch | 1000 | No. | | |
| 2 | 6 A modular switch with its plate & hardware | 1000 | No. | | |
| 3 | 16 A 1 - way Piano Switch | 500 | No. | | |
| 4 | 16 A modular switch with its plate & hardware | 500 | No. | | |
| 5 | 6A 5 Pin Socket | 500 | No. | | |
| 6 | 6A 5 Pin Modular Socket with its plate & hardware | 500 | No. | | |
| 7 | 16/6 A- 6 Pin Socket | 200 | No. | | |
| 8 | Modular 16/6 A- 6 Pin Socket with its plate & hardware | 200 | No. | | |
| 9 | 16/6 A 250 V Switch socket combined with box | 100 | No. | | |
| 10 | Modular 16 A 250 V Switch socket combined with box | 100 | No. | | |
| 11 | 16/6 A 5 in-one combined with Box | 100 | No. | | |
| 12 | Modular 6 A 5 in-one combined with Box | 100 | No. | | |
| 13 | Ding Dong Bell 250 V AC | 50 | No. | | |
| 14 | Anchor Chime Bell 250 V AC | 50 | No. | | |
| 15 | Remote Cordless bell | 100 | No. | | |
| 16 | Angle Holder | 500 | No. | | |
| 17 | Modular Angle Holder as per site requirement. | 50 | No. | | |
| 18 | 1200 mm Ceiling Fan Bearing Set | 50 | No. | | |
| 19 | Ceiling Fan Capacitor (2.5/4 MFd.) | 500 | No. | | |
| 20 | 2 Module Step Cut Electronic Regulator | 250 | No. | | |
| 21 | Single Module Step Cut Regulator | 250 | No. | | |
| 22 | PVC Tape 1.80cmx7mx0.125mm in four colours red, yellow, blue and black | 3000 | No. | | |
| 23 | Power Strip 4 Nos. with switch & fuse Power Sockets 230 V 50 Hz AC. | 100 | No. | | |
| 24 | Astronomical Digital Timer Switch of GIC/L&T make for 24 hrs. with back up and operating voltage 230 V 50 Hz. | 25 | No. | | |
| 25 | 3 Phase Air Break Contactor of 4 pole contactor of 32/63 A of L&T or its equivalent. | 25 | No. | | |
| 26 | Casing Capping Patti 20 mmX12 mtr. length. size (standardlength) with its accessories as per site requirement. (Packets of 400) | 1 | No. | | |
| 27 | Casing Capping Patti 30 mm X 15 mtr. Length size with its accessories as per site requirement. (Packets of 200) | 2 | No. | | |
| 28 | Metallic Red Oxide Primer (20Ltr.) Tin | 5 | No. | | |

| | | | | | |
|----|----------------------------------|----|-----|--|--|
| 29 | Enamel Paint (5 Ltr.) Tin Silver | 10 | No. | | |
| 30 | Enamel Paint (5 Ltr.) Grey/Black | 10 | No. | | |

TOTAL OF PART-C

Seal & Signature of
Contractor

Sd/-

Executive Engineer (Elect.)
Deendayal Port Authority

PART - "D" (Hiring of Vehicle)

| SN | Description | Qty. | Unit (8 hrs. shift) | Rate per Day/shift | Amount |
|-----------------|---|------|---------------------|--------------------|--------|
| 1 | Deployment of Hydraulic Elevator in vehicle (reach up to 15 Mtrs.) as and when required (8 hrs. per day basis) and as directed by EIC. The hydraulic elevator shall be deployed within 4 hrs. from the intimation by DPA through telephone or otherwise. | 90 | Shifts | | |
| 2 | Providing of four wheeler (Bolero Camper) or equivalent as and when required and as directed by Engineer-in-Charge. The same shall be provided within 2 hrs. from the intimation by DPA through telephone or otherwise. | 100 | shift | | |
| 3 | Providing of DG set of 85 KVA to 100 KVA on hiring with 8 hrs. per day basis with to and fro transportation along with operator, fuel within 4 hours after intimation from DPA | 8 | shift | | |
| 4 | Providing of tractor with trailer On hiring with 8 hrs. per day Basis with driver and fuel within 4 hrs. after intimation from DPA. | 20 | shift | | |
| 5 | Providing of hydra on hire with 4 hrs. per day basis with driver, Attachments for lifting Of material and fuel within 4 Hrs. after intimation from DPA. | 8 | Shift | | |
| 6 | Providing of tyre type excavator with 600 mm bucket on hire basis with driver and fuel alongwith attachments on for 4 hrs. per day basis WITHIN 4 hrs. after intimation From DPA. | 25 | Shift | | |
| TOTAL OF PART-D | | | | | |

TOTAL OF PART A
TOTAL OF PART B
TOTAL OF PART C
TOTAL OF PART D

Total Amount (A+B-C+D) = _____

Sd/-

**Signature & Seal
of Contractor**

**Executive Engineer (Elect.)
Deendayal Port Authority**

Approved Make List for Electrical Items

| Sr. No. | Description | Recommended Makes |
|----------------|---|---|
| 1 | HT VCB | SIEMENS / CROMPTON GREAVES/ABB/Schneider |
| 1(a) | HV Gas Insulated Breakers | SIEMENS /Schneider/ABB |
| 2 | POWER TRANSFORMERS | VOLTAMP/CROMPTON GREAVES /BHARAT BIJLEE/ BHEL/ SIEMENS/ ABB/ Schneider/T&R |
| 3 | DISTRIBUTION TRANSFORMERS | EMCO/KIRLOSKAR/PATSON/VOLTAMP/ ABB / Schneider / T&R |
| 4 | RESIN CAST TRANSFORMERS | |
| | A) RESIN CAST IMPREGNATED | VOLTAMP / KIRLOSKAR / EMCO |
| | B) DRY CAST | VOLTAMP/KIRLOSKAR/EMCO |
| 5 | HT XLPE CABLES | POLYCAB/TORRENT/RPG ASIAN/ /GLOSTER/ UNISTAR/ UNISTAR/KEI/FINOLEX/HAVELLS |
| 6 | LT XLPE CABLES | POLYCAB/TORRENT/RPG ASIAN/ / RALLISON/PRIMECAB/ HAVELLS/ UNISTAR/AVOCAB / ADCAB |
| 7 | LT ACB | SIEMENS/L&T/SCHNEIDER/C&S |
| 8 | PROTECTION RELAYS | AREVA/L&T/SIEMENS/ABB/C&S |
| 9 | LT PANEL | CPRI APPROVED |
| 10 | CHANGE OVER SWITCH | SIEMENS/L&T/ABB/C&S/SCHNIDER/ LEGRAND / INDOASIAN |
| 11 | SFU FOR MAIN LT DISTRIBUTION PANELS | SIEMENS/L&T/ABB/C&S |
| 12 | SFU FOR DISTRIBUTION PANELS & FEEDER PILLERS | SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/HAVELLS |
| 13 | MCCB FOR MAIN LT DISTRIBUTION PANELS | SIEMENS/L&T/ABB |
| 14 | MCCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS | SIEMENS/L&T/ABB/C&S/ SCHNIDER/ LEGRAND/ INDOASIAN/HAVELLS |
| 15 | MCB/ELCB/RCCB/ RCCBO FOR MAIN LT DISTRIBUTION PANELS | SIEMENS/HAGER L&T/ABB |
| 16 | MCB FOR DISTRIBUTION PANELS AND FEEDER PILLERS | SIEMENS/L&T/ABB/C&S/ SCHNEIDER/ LEGRAND/ INDOASIAN/ HAVELLS/ STANDARD |
| 17 | MCB DISTRIBUTION BOARD | STANDARD / HENSEL/LEGRAND / INDOASIAN / HAVELLS |
| 18 | MULTI FUNCTION DIGITAL METER FOR MAIN LT DISTRIBUTION PANELS/DIGITAL KWH METERS | L&T/ENERCON/SECURE/L&G/ RISHABH |

| | | |
|-----|---|---|
| 19 | ANALOG VOLT/AMPARE METER FOR DISTRIBUTION PANELS AND FEEDER PILLERS | RISHABH/AE/ENERCON/L&T |
| 20 | SLECTOR SWITCH FOR VOLTMETER/AMPARE METER | L&T/SIEMENS/C&S |
| 21 | POWER CONTACTOR & OVER LOAD RELAYS | L&T/SIEMENS/ABB |
| 22 | QUARTZ TIME CLOCK SWITCH | L&T/INDOASIAN/SIEMENS |
| 23 | PVC WIRE WITH COPPER CONDUCTOR | RR KABEL / KEI / POLYCAB/MILEX/GUJCAB/ STANDARD / FINOLEX / ANCHOR |
| 24 | FLUSH TYPE SWITCHES, SOCKETS, HOLDERS AND CEILING ROSES & ELECTRONIC REGULATORS | ANCHOR/MK/NORTHWEST/VINAY /PANAMA / HAVELLS |
| 25 | DOOR BELLS/CALL BELLS | ANCHOR/LEGEND/MK/NORTHWEST |
| 26 | MODULAR SWITCHES, SOCKETS, PLATES & BOXES | ANCHOR / MK / NORTHWEST / LEGRAND /HAVELLS / INDOASIAN / SIMENS. |
| 27 | PVC CONDUIT/OVAL CONDUIT & CASSING CAPPING AND ACCESSORIES | PRECISION/VULCAN/FINOLEX/ GARWARE/ RESTOPLAST/ SWASTIK / BPI |
| 28 | GLS LAMPS & FLUORESCENT LAMPS | PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE |
| 29 | HPSV, HPMV & METAL HELIDE LAMPS | PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE |
| 30 | IGNITORS FOR HPSV, METAL HELIDE LAMPS | PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE |
| 31 | LUMINARIES | PHILIPS / BAJAJ / WIPRO / CROMPTON GREAVES / OSRAM / SURYA ROSHNI / GE/C&S |
| 31a | LED LUMINARIES | Philips /Bajaj/Wipro/CG/Surya/Pyrotech/Syska/Nessa/C&S having surge Protection $\geq 10KV$ for fittings & internal Surge Protection for Driver of $\geq 4KV$, LED Chip only OSRAM/CREE/Philips Lumileds/Citizen/ with LM-79,80 CERTIFICATION |
| 32 | CEILING FANS | BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC |
| 33 | WALL MOUNTING FANS | BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC |
| 34 | EXHUAST FANS | BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC |
| 35 | HEAVY DUTY INDUSTRIAL WALL MOUNTING FANS | BAJAJ/ORIENT/USHA/CROMPTON GREAVES / ALMONARD/GEC or its equivalent |
| 36 | WATER COOLER | VOLTAS/SHRIRAM USHA/BLUE STAR |
| 37 | AIR CONDITIONERS | VOLTAS/CARRIER/BLUESTAR/USHA/ HITACHI/LG/ SAMSUNG/ONIDA |
| 38 | REFRIGERATORS | VOLTAS / CARRIER / BLUESTAR / USHA / HITACHI / LG / SAMSUNG / WHIRLPOOL |

| | | |
|----|---------------------|---|
| 39 | VOLTAGE STABILIZER | VEELINE / CAPRI |
| 40 | INVERTERS | SUKAM / MICROTEK |
| 41 | D.G. SETS | |
| | A) ENGINE | CUMMINS/GREAVES/KIRLOSKAR/ CATERPILLAR /ASHOK LEYLAND /VOLVO |
| | B) ALTERNATOR | STAMFORD/CROMPTON GREAVES /JYOTI/ KIRLOSKAR ELECTRIC |
| 42 | ELECTRIC MOTOR | ALSTOM/CROMPTON GREAVES /SIEMENS/ KIRLOSKAR/ABB |
| 43 | WATER PUMPS | SWASTIK / KSB |
| 44 | WATER GEYSER | BAJAJ/USHA / CROMPTON GREAVES / SPHEREHOT / RACOLD |
| 45 | LUGS & CABLE GLANDS | DOWELLS / JAINSON / BRACO |

Note:

In case of supply of Make of material which is not in the DPA approved Make list, the said material should be supplied as per the latest GETCO approved Make list.

In case of supply of Make of material which is neither available in the DPA approved Make list not in the latest GETCO approved Make list, the said material should be supplied as per the Make decided by EIC for which written intimation will be given to the contractor.

Before procurement of material, the Make of the material should be approved by EIC in writing.

Sd/-

**Signature & Seal
of Contractor**

**Executive Engineer (Elect.)
Deendayal Port Authority**

