

CENTRAL PUBLIC WORKS DEPARTMENT

कार्य का नाम:— MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)

NIT No.:62/EE(E)/DED-81/2026-27

विषय सूची (INDEX)

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प्रमाणित किया जाता है कि इस निविदा में कुल 1 से 86 पृष्ठ हैं।

Certified that this N.I.T. contains 1 to 86 pages.

“NIT approved for Rs. 94,79,676/-(Ninety-Four Lakh Seventy-Nine Thousand Six Hundred & Seventy-Six)”

**Assistant Engineer (E) P
DED-81, C.P.W.D**

**Executive Engineer (E)
DED-81, C.P.W.D**

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

The Executive Engineer (E), DED-81, CPWD, Block No. 13, CGO Complex, Lodhi Road, New Delhi. Ph No.011-24367152, (E-mail:- deleecd3.cpwd@nic.in), on behalf of the President of India invites online percentage rate bids from approved and eligible contractors of CPWD and those of appropriate list of Registered contractor in CPWD in appropriate class of **Buildings & Roads category** in single bid system for the following work:-

S. No.	NIT No.	Name of work & Location	Estimated cost put to bid	Earnest Money	Stipulated Period of Completion of work (in months)	Last date of online submission of bid, copy of receipt of deposition of original EMD and other documents as specified in the bid document.	Time and Date of opening of Price Bid
1	2	3	4	5	6	7	8
1	62/EE(E)/DED-81/2026-27	MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH: - Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)	Rs. 94,79,676/-	Rs. 1,89,594	12 Months	17-09-2026 Upto 16:00 hrs	17-09-2026 at 16:30 hrs

1. The successful bidder (to be called as Main Contractor) shall have to associate specialized agency(s) for execution of the following specialized work(s) as per eligibility criteria defined in SPECIAL CONDITIONS FOR ASSOCIATION OF SPECIALIZED AGENCIES/OEM.
 - a) **Operation & Maintenance of Sub-Station & DG Set**
 - b) **Operation & Maintenance of Fire Fighting & Fire Alarm System**
 - c) **Operation of Lifts**
 - d) **AMC of Lifts**
 - e) **AMC of DG Sets**
 - f) **AMC of RO Plant**
 - g) **Refilling of Fire Extinguisher**

h) Servicing of Sub-station

i) EPABX System

2. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
3. Information and instructions for bidder posted on website shall form of bid document.
4. The tender document consisting of plans, specifications, the Schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen from website <https://etender.cpwd.gov.in> or <https://cpwd.gov.in> free of cost.
5. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as **Insurance surety Bonds, Account Payee Demand Draft or Bankers Cheque or Fixed Deposit Receipt or / and Bank guarantee issued by any commercial bank towards EMD in favour of Executive Engineer(Elect.), ECD-III, CPWD, CGO Complex, Lodhi Road, New Delhi**, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE), CPWD and other documents as specified.
Note: - EMD shall be made/ issued only from the account of the bidder/tenderer submitting the bid/tender. EMD made/issued from the account other than that of the bidder/tenderer submitting the bid, shall not be accepted.
6. Those contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered/update their profile beforehand. The necessary training materials including the videos with step-to-step process are available on download section of <https://etender.cpwd.gov.in>.
7. The intending bidder must have valid class-III digital signature to submit the bid.
8. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
9. Contractor can upload documents in the form of JPG format and PDF format.
10. Contractor must ensure to quote rate in the prescribed column(s) meant for quoting rate in figures appears in pink colour and the moment rate is entered, it turns sky blue.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as “0”. Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as “0” (ZERO).

However, If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

11. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

List of Documents to be scanned and uploaded within the period of bid submission:

- (i) Insurance surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank guarantee from any of the Commercial Banks against EMD in favour of **Executive Engineer (Elect.), ECD-III, CPWD, CGO Complex, New Delhi. (Validity period of EMD should be 90 days from the date of submission of bid).**

Note: - EMD shall be made/ issued only from the account of the bidder/tenderer submitting the bid/tender. EMD made/issued from the account other than that of the bidder/tenderer submitting the bid, shall not be accepted.

- (ii) Copy of receipt for deposition of original EMD issued from Division office of any Executive Engineer, CPWD (In Enclosed Performa)
- (iii) Copy of Enlistment Order of the Contractor of the Buildings & Roads category in CPWD
- (iv) GST Registration Certificate if already obtained by the bidder.

Or

If the bidder has not obtained GST registration as applicable, then he shall scan and upload following undertaking on a Non Judicial Stamp Paper of Rs.100/-, duly notarized, along with bid documents, "If work is awarded to me, I/we shall obtain GST registration certificate, as applicable, within one month from the date of receipt of award letter or before release of any payment by CPWD, whichever is earlier, failing which I/we shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CPWD or GST department in this regard".

- (v) Copy of Valid Electrical Contractor License or undertaking that **"I/We will either obtain valid electrical license at the time of execution of electrical work or associate contractor having valid electrical license of appropriate class."**
- (vi) The intending bidder shall upload an undertaking that **"I/We shall submit the documents of Associated specialized Agencies as per the eligibility criteria mentioned in the special conditions of NIT for association of specialized agencies along with at the time of submission of Performance Guarantee, otherwise department may reject my/our tender & may forfeit the deposited EMD absolutely & debar me/us from re-tendering for this work"**.
- (vii) Certificate of ERP Training of enlisted contractor or his authorized representative as per DG/Enlist. Rules-2023/10 Dated 22.04.2024 for compulsory ERP training through any of the CPWD Regional Training institutes (RTIs) at Delhi, Mumbai, Chennai and Kolkata, National CPWD Academy (NCA) Ghaziabad, Training arranged by Graduates of ERP "Train the Trainers Programme" conducted by NCA, Ghaziabad or through any other special training arranged by ERP unit of CPWD. Certificate should be issued through LMS (Learning Management System) in e-Nirmit.
- (viii) Email & mobile no. Of the firm / agency on the letter head of firm/agency (For making correspondence.

NOTE: Please note that EMD should be in favour of EXECUTIVE ENGINEER (E), ECD-III, CPWD, NEW DELHI.

सहायक अभियंता(वि०) यो०
दि.वै.म.-८१,के०लो०नि०वि०,

कार्यपालक अभियंता (वि०),
दि.वै.म.-८१,के०लो०नि०वि०,

1. The Engineer-in-Charge/DDH of any divisions/projects of CPWD or any other officer designated by CPWD Directorate from time to time, are authorized to receive the EMDs. These authorities should receive the original EMD for their tenders or tenders of any other division/projects
2. The NIT approving authority/ Tender inviting authority at the time of issue of NIT also fills and upload the following prescribed format of receipt of deposition of original EMD along with NIT

RECEIPT OF DEPOSITION OF ORIGINAL EMD

Receipt of deposition of original EMD (Receipt No. Date... ..)		
1.	Name of Work	MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)
2.	NIT No.	62/EE(E)/DED-81/2026-27
3.	Estimated Cost	Rs.94,79,676/-
4.	Amount of Earnest Money Deposit	Rs. 1,89,594 (to be refunded after receiving the Performance Guarantee)
5.	Last date of submission of bid	17-09-2026 upto 16:00 hrs
(*To be filled by Tender inviting authority/NIT approving authority at the time of issue of NIT and uploaded along with NIT)		
1.	Name of Contractor	
2.	Form of EMD	
3.	Amount of Earnest Money Deposited	
4.	Date of submission of EMD	
5.	Signature of EMD receiving Officer: Name and Designation of EMD receiving Officer: Office Stamp:	

(# To be filled by EMD receiving EE/DDH

Name and Designation of EMD Receiving officer
(EE/AE(P)/AAO) Along with office stamp

3. The Authority receiving EMD in original form examines the EMD deposited by the bidder and issues receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting authority. **The receipt can also be issued by any subordinate gazette authority as authorized by the EE/AAO/AE(E)P.**
4. The authority receiving original EMD also intimates tender inviting authority about deposition of EMD by the agency by email/fax/telephonically.
5. The original EMD receiving authority releases the EMD to unsuccessful bidders after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier, after verification from the e-tendering portal that the particular contractor is not L-1 tenderer and work is awarded.
6. The tender inviting authority calls for original EMD of the L-1 tenderer from EMD receiving authority immediately

SPECIAL CONDITIONS FOR ASSOCIATION OF SPECIALIZED AGENCIES

- It should be noted that only the associated agencies engaged by the contractor for specialized services shall disburse the payment of salaries, EPFO, ESIC and other relevant documents of the workers deployed by it and only the documents submitted by the associated agencies for payment of salary and ESIC & EPFO shall be accepted. The main contractor shall in no way be concerned with the payment and other remuneration of the workers of the specialized/associated agencies.

1. The main contractor shall have to associate other agency(s) (Joint ventures are not accepted) for execution of each of the specialized work (s), who fulfils the eligibility criteria as defined below.

For components of E&M works, the eligibility criteria for associate agency will be as detailed below:				
Sl. No.	Sub-Head	Component of E&M works	Estimated Cost Rs.	Eligibility
1	SH-II	Operation & Maintenance of Sub-Station & DG Set	Rs.18,81,228/- <i>(Work experience should be 50% of both component)</i>	Three similar works each of value not less than Rs. 7,52,491/- with individual Operation & Maintenance of Sub-Station & DG Set OR Two similar works each of value not less than Rs. 11,28,737/- with individual Operation & Maintenance of Sub-Station & DG Set OR One similar works each of value not less than Rs. 15,04,982/- with individual Operation & Maintenance of Sub-Station & DG Set
2	SH-III	Operation & Maintenance of Fire Fighting & Fire Alarm System	Rs.15,23,880/- <i>(Work experience should be 50% of both component)</i>	Three similar works each of value not less than Rs. 6,09,552/- with individual Operation & Maintenance of Fire Fighting & Fire Alarm System OR Two similar works each of value not less than Rs. 9,14,328/- with individual Operation & Maintenance of Fire Fighting & Fire Alarm System OR One similar works each of value not less than Rs. 12,19,104/- with individual Operation & Maintenance of Fire Fighting & Fire Alarm System
3	SH-IV	AMC of Eureka Forbes Aquaguard RO Plant 500 LPH	Rs.4,97,650/-	The main contractor should engage an OEM/ authorized service partner of RO Plant of M/s Eureka Forbes for the job.
4	SH-V	Operation of Lifts	Rs.8,69,484/-	Three similar works each of value not less than Rs. 3,47,794/- with individual Operation of Lifts OR Two similar works each of value not less than Rs. 5,21,690/- with individual Operation of Lifts OR One similar works each of value not less than Rs. 6,95,587/- with individual Operation of Lifts

5	SH-VI & SH-VII	AMC of OTIS Lift & Providing & Replacement of Automatic Lift door	Rs.12,29,160/-	The main contractor should engage an OEM of Lifts of M/s OTIS for the job.
6	SH-VIII	Lift Intercom System (EPABX)	Rs.1,92,749/-	Three similar works each of value not less than Rs. 77,100/- with individual SITC of Lift Intercom/ EPABX System OR Two similar works each of value not less than Rs. 1,15,649/- with individual SITC of Lift Intercom/ EPABX System OR One similar works each of value not less than Rs. 1,54,199/- with individual SITC of Lift Intercom/ EPABX System
7	SH-IX	AMC of Cummins make DG Set	Rs.2,82,849/-	The main contractor should engage an OEM/ authorized service partner of DG Set of M/s Cummins for the job.
8	SH-XI	Refilling of Fire Extinguisher	Rs.2,63,473/-	Three similar works each of value not less than Rs. 1,05,389/- with individual Refilling of Fire Extinguisher OR Two similar works each of value not less than Rs. 1,58,084/- with individual Refilling of Fire Extinguisher OR One similar works each of value not less than Rs. 2,10,778/- with individual Refilling of Fire Extinguisher
9	SH-XII	Servicing of Sub-Station	Rs.6,63,925/-	Three similar works each of value not less than Rs. 2,65,570/- with capacity of 2000 KVA individual Sub-Station OR Two similar works each of value not less than Rs. 3,98,355/- with capacity of 2000 KVA individual Sub-Station OR One similar works each of value not less than Rs. 5,31,140/- with capacity of 2000 KVA individual Sub-Station

Note:-

- (1) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7 % per annum; calculated from the date of completion to previous day of last date of submission of tenders.
- (2) Should have satisfactorily completed the works as mentioned below during the last Seven years ending last day of the month previous to the one in which tenders are invited.

3. However, the composite category contractor shall also be eligible to carry out himself /herself any or all of the above specialized works mentioned at BOQ only without associating any specialized agency provided:-
 - i. The main agency fulfils the prescribed eligibility criteria respectively for the above specialized work (s).
4. The main contractor shall have to submit documents of proposed associated specialized agencies such as (i) self attested copies of Certificates of Work Experience/Completion certified by an officer not below the rank of Executive Engineer/Project Manager or equivalent, clearly indicating a)Name of work, b) Scope of Work, c)Agreement No. d) Estimated Cost e)Tendered Cost, f) Final Value of Work Done, g) Date of Start, h) Stipulated date of Completion, i) Actual date of completion, j) Nature of the Work etc. (In case some of above said details are not mentioned in the Completion certificate, the firm shall attach sample proof in support of above details), (ii). Self attested copy of valid Electrical contractor license (if applicable), (iii) GST registration for approval of the department as per eligibility requirement mentioned in above along with the performance guarantee after the acceptance of tender.
5. Original consent letter of such selected associated specialized agencies for association shall also be enclosed in the prescribed format as per FORM-X. Along with documents mentioned at sl.no-3& 4.
6. If the main contractor fails to submit all the documents of the proposed associated specialized agencies as mentioned at **Sr No. 4 & 5** above, along with the performance guarantee after the acceptance of tender otherwise department may reject tender of the contractor & may forfeit the deposited EMD absolutely & debar the contractor from re-tendering for this work”
7. After approval of associated specialized agencies by Engineer-in-charge, the main contractor will submit MOU signed with the associated specialized agency as per FORM-Y in shape of affidavit on stamp paper duly attested by notary in original within 7 (Seven) Days after issue of approval letter (for associate specialized agency). The MOU shall be signed by both the parties “i.e. main contractor as 1st party and associated specialized Agency as 2nd party, independently for all specialized work(s).
8. All technical discussions during currency of the contract, shall be attended by the associated specialized agencies and the main contractor. Commercial/Technical submissions for the specialized work(s) shall be signed and submitted by the associate specialized agencies along with the main contractor.
9. The associated specialized agencies and the main contractor shall attend the site during inspection of the work by the Engineer-in-Charge or higher authority.
10. The main contractor shall be entirely responsible and answerable for all the works done by his associated specialized agency regarding their quality, adherence to the laid down specification, terms and conditions, warranty/guarantee etc as per the agreement and he shall be liable to bear any compensation that may believe by the department under any of the clauses of the agreement.
11. In the even to the concerned Associated specialized Agency not performing satisfactorily or failure to complete the specialized works(s), the main contractor on written directions of the Engineer-in-charge, shall remove the Associated specialized Agency deployed on the work and shall submit name of new associated Specialized Agency as per eligibility criteria mentioned in the NIT to execute the left over specialized work(s) without any loss of time after completion of all formalities

mentioned as above in Sl.No. 1,2,4,5 & 7.

Also if main contractor wants to change the associated specialized agency during the currency of the contract he shall submit name of new associated Specialized Agency per eligibility criteria mentioned in the NIT to execute the left over specialized work(s) after completion of all formalities mentioned as above in Sl. No. 1,2, 4, 5 & 7.

12. The main contractor shall be responsible and liable for proper and complete execution of the all works including specialized work(s) and ensure coordination and completion of all associated specialized agencies.
13. Running payment for the work shall be made to the main contractor. In case main contractor fails to make the payment to the associated specialized agency(s) by him within 15 days of receipt of each running account payment then on the written complaint of any associated specialized agency(s) for such work, Engineer-in-Charge shall serve the show cause to main contractor and after considering the reply of the same he may make the payment directly to the concerned associated specialized agency(s) for the work as per the terms & conditions of the agreement/ M.O.U. drawn between main contractor and associated specialized agency fixed by him, if reply of main contractor either not received or found unsatisfactory. Such payment made to the associated specialized agency(s) shall be recovered by Engineer-in-Charge from the next RA/final bill due to main contractor as the case maybe.

Form -X

CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF ELECTRICAL WORK.

Name of work:- MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)

1. I / We hereby give my consent to associate with M/s....., for executing the of work of..... (Mention Electrical work).
2. I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer-in-Charge for the electrical work till the completion of the work.
3. I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.
4. Also I / We will employ full time technically qualified Engineer / supervisor for the electrical work component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.

Date:

Signature with date of Main Agency/Contractor

Signature with date of Associate Agency

Address

Address

1. Witness with address

(From main contractor side)

2. Witness with address

(From associated agency)

Form-Y

MEMORANDUM OF UNDERSTANDING [M.O.U] BETWEEN

1] M/S [Name of the firm/agency with

full address] Enlistment Status

Valid Upto:

[Henceforth called the main contractor]

And

2] M/S [Name of the firm/agency with

full address] Enlistment Status

Valid Upto:

[Hence forth, called Associated Agency]

1. For the execution of Electrical Work(s) MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH: - Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)

2. We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act [amended upto date] and the department [CPWD] can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the EE (E), DED-81, CPWD, New Delhi. Any of us may appeal against the mediation to the ADG(RD), CPWD, Nirman Bhawan New Delhi. His decision shall be final and binding on both of us.

We have agreed as under:

- 1] The associated agency will execute all electrical work in the wholesome manner as per terms and conditions of the agreement and as per the direction of the Engineer-in-charge.
- 2] That the Associated agency has gone through the contract and has understood the scope of work required for the purpose of executing electrical work.
- 3] All the machinery and equipments, tools and plants, special T&P required for execution of the specialized work(s), as per agreement, shall be the responsibility of the associated ed agency.
- 4] The site staff required for the electrical work(s) shall be arranged by the associated agency as per terms and conditions of the agreement.
- 5] Site order book maintained for the said work shall be signed by the authorized representative of main contractor as well as Associated Agency.
- 6] All the correspondence regarding execution of the electrical work(s) shall be done by the Department with the Associated agency with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated agency shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

SIGNATURE OF MAIN CONTRACTOR

SIGNATURE OF

ASSOCIATED AGENCY.

Date:

Date:

Place:

Place:

CPWD-6 FOR e-TENDERING

~~Item rate/Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD and those of appropriate list of **Registered contractor in CPWD in appropriate class of Buildings & Roads category** in single bid system and those of appropriate list of M.E,S, BSNL, Railways and State P.W.D. (B&R) or State Govt.'s Department (Strike out as the case may be) dealing with building and roads, if there is no state PWD (B&R) for the work of:-~~

MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)

The enlistment of the contractors should be valid on the last date of submission of tenders.

In case only the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1.1 The work is estimated to cost Rs. 94,79,676/- This estimate, however, is given merely as a rough guide.

1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the tenders. He will also nominate Division which will deal with all matters relating to the invitation of tenders. **-N.A.-**

For Building & Roads category tender, besides indicating the combined estimated cost put to tender, should clearly indicates the estimated cost of each component separately. The eligibility of renderer will correspond to the combined estimated cost of different components put to tender.

1.2 Intending tender is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:--**N.A.-**

Criteria of eligibility for submission of tender documents

1.2.1 Conditions for Non-CPWD contractors only, if tenders are also open to non-CPWD contractors. For works estimated cost up to Rs. 15 Crore (the figure of Rs. 15 Crore may be modified as per tendering limit of CPWD class I contractors of respective discipline such as Electrical, Horticulture and Furniture etc. as the case may be)

Three similar works each of value not less than Rs. or two similar work each of value not less than Rs. or one similar work of value not less than Rs.

(all figures rounded to nearest Rs.10 lac) in last 7 years ending last day of the month previous to the one in which the tenders are invited.

Note :-

For works costing above Rs. 3 Crore but up to Rs. 15 Crore, (the figure of Rs.3 Crore and Rs. 15 Crore may be modified as per tendering limit of CPWD CPWD 6 for e-tendering modified up to 26.08.10 class II and CPWD Class I contractors respectively of respective discipline such as Electrical, Horticulture and Furniture etc. as the case may be) when tenders are open to non CPWD contractors also, then class II contractors of CPWD shall also be eligible if they satisfy the eligibility criteria specified in 1.2.1 above. **-N.A.-**

**1.2.2 Criteria of eligibility for CPWD as well as non-CPWD contractors.
For works estimated to cost above Rs. 30 Crore.**

~~Three similar works each of value not less than Rs. or two similar work each of value not less than Rs. or one similar work of value not less than Rs. (all figures rounded to nearest Rs.10 lac) in last 7 years ending last day of the month previous to the one in which the tenders are invited.~~

~~The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of tender.~~

To become eligible for issue of tender, the tender shall have to furnish an affidavit as under:-

I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee. (Scanned copy to be uploaded at the time of submission of bid)

1.2.3 When tenders are invited from non CPWD contractors and CPWD class II contractors, it will be mandatory for non CPWD contractors and CPWD class-II contractors to upload the work experience certificate(s) and the affidavit as per the provisions of clause 1.2.2.

2. Agreement shall be drawn with the successful tenderer on prescribed Form No. CPWD 7 (or other Standard Form as mentioned) which is available as a Govt. of India Publication. Tender shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. The time allowed for carrying out the work will be **12 Months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the tender documents.

4. The site for the work is available.

OR

The site for the work shall be made available in parts as specified below:--**N.A.-**

5 The tender document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions Of Contract Form can be seen from website <https://etender.cpwd.gov.in> or <https://cpwd.gov.in> free of cost.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified.

7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.

8. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.

9. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank guarantee (for balance amount as prescribed) from any of the Commercial Banks (drawn in favour of **Executive Engineer (Elect.), ECD-III, CPWD, CGO Complex, Lodhi Road, New Delhi-110003**) shall be scanned and uploaded to the e-tendering website within the period of bid submission.

The original EMD should be deposited either in any Office of CPWD (up to division office) within the period of bid submission. The EMD receiving Executive Engineer/Assistant Engineer/AAO shall issue a Receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee including e- Bank Guarantee of any Commercial bank having validity for a period of 90 days for single bid works and 180 days for two bid system or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders..

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice inviting e- tender shall be scanned and uploaded on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e- tender notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD and other documents scanned and uploaded are found in order.

9A.The bid submitted shall be opened on **17-09-2026 at 16:30 hrs.**

10. The bid submitted shall become invalid if:

- i) The bidder is found ineligible.
- ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
- iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the **lowest bidder** in the office of tender opening authority.
- iv) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section/sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

11. The contractor whose bid is accepted, will be required to furnish performance guarantee at 5% (Five Percent) of the tendered amount as mentioned in Schedule “E” and within the period specified in Schedule F. This guarantee shall be in the form of insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule “F”, including the extended period if any, then EMD submitted shall be forfeited automatically without any notice to the contractor. The Earnest Money deposited along with the bid shall be returned after receiving the aforesaid Performance Guarantee. The Contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC, and BOCW Welfare Board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work and Programme Chart (Time and Progress) within the period specified in Schedule F.

12. Intending Tenders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is

practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tender shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The tender shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tender implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tender shall be summarily rejected.

14. Canvassing whether directly or indirectly, in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.

15. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the tender and the tender shall be bound to perform the same at the rate quoted.

16. The contractor shall not be permitted to tender for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

17. No Engineer of gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.

18. The bid for the works shall remain open for acceptance for a period of **Thirty (30) days from the date of opening of bids.**

- i. If any tenderer withdraws his tender within 7 days after last date and time (24 hours basis) of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
- ii. If any tenderer withdraws his tender after expiry of 7 days after last date and time (24 hours basis) of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work issued or not.
- iii. Withdrawal of the tender, by the tenderer shall only be made through e-tender portal. Any other method i.e. through letter / email etc. shall not be considered. The tender inviting authority gets intimation through SMS and email in this regard.

- iv. If contractor fails to furnish the prescribed performance guarantee within the prescribed period, the earnest money is absolutely forfeited to the President automatically without any notice.
- v. In case of forfeiture of earnest money as prescribed in Para (i) to (iv) above, the bidder shall not be allowed to participate in the re-tendering process of the work.

19. This notice inviting Tender shall form a part of the contract document. The successful tender/contractor, on acceptance of his tender by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-

- a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming part of the tender as uploaded at the time of invitation of tender and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
- b) Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as mentioned.

सहायक अभियंता(वै०) यो०
दि.वै.म.-८१,के०लो०नि०वि०,

कार्यपालक अभियंता (वै०),
दि.वै.म.-८१,के०लो०नि०वि०,

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT

Percentage Rate Tender & Contract for Works

Tender for the work: MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)

To be submitted by 16:00 hrs (time) hours on **17-09-2026** (date) to Executive Engineer (E), DED-81, CPWD, CGO Complex, New Delhi.

- (i) To be opened in presence of tender who may be present at 16:30 hrs on **17-09-2026** in the office of Executive Engineer (E), DED-81, CPWD, CGO Complex, New Delhi.

Issued To NIT.....

Signature of officer issuing the documents
 Designation

Executive Engineer (E),
 DED-81, CPWD,
 CGO Complex, New Delhi

Date of Issue

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for Thirty (30) days from the due date of its opening in case of single bid system ~~or 75 (Seventy Five) days from the date of opening of Technical bid in case tenders are invited on two/three bid system for specialized work~~ and not to make any modification in its terms and conditions.

A sum of Rs. 1,89,594 is hereby forwarded in Insurance surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank guarantee (for balance amount as prescribed) issued by any of the Commercial Banks as earnest money.

A copy of earnest money in Insurance surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank guarantee (for balance amount as prescribed) issued by any of the Commercial Banks is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed

performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/ We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

Further, I/We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid. I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CPWD in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Dated:.....

Signature of Contractor
Postal Address.....
Telephone No.....

Witness:.....
Address:.....
Occupation:.....

FAX.....
E-MAIL.....

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for anon behalf of the President of India for a sum of Rs _____

The letters referred to below shall form part of this contract agreement:-

For & on behalf of President of India

Executive Engineer (E)
DED-81, CPWD,
CGO Complex, New Delhi

Dated:

SCHEDULES

SCHEDULE 'A'

Schedule of quantities (enclosed)

As per Schedule of work attached.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

S.No.	Description of item	Qty.	Rates in figures & words at which the material will be charged to the contractor.	Place of issue
1	2	3	4	5
----- NIL -----				

SCHEDULE 'C'

Tools and plants to be hired to the contractor:

S. No.	Description	Hire charges per day	Place of issue
1	2	3	4
----- NIL -----			

SCHEDULE 'D'

Extra schedule for specific requirements / : NIL
documents for the work, if any.

SCHEDULE 'E'

Reference to General Conditions of contract	:	General conditions of contract for Maintenance Work-2023 with amendment issued upto date of submission of tender.
Name of work	:	MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipments, stand by 320 KVA DG Set, Pump Set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Substation, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)
Estimated cost of work	:	Rs. 94,79,676/-
(i) Earnest money	:	Rs. 1,89,594
(ii) Performance Guarantee	:	a) 5% of Tendered Value OR Estimated Cost Put to Tender (ECPT), whichever is higher. b) Where the tendered amount is less than Eighty Percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, <u>in addition to the requirement under (a) above, shall be increased by an amount</u> equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
(iii) Security deposit	:	2.5% of tendered value

SCHEDULE 'F':-

General Rules & Directions: -

Latest GCC provisions

Officer inviting tender:	:	Executive Engineer (E), DED-81, CPWD, CGO Complex, New Delhi.
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3	:	See Clause-12 below

Definitions:

2 (v) Engineer-in-Charge	:	Executive Engineer, DED-81, CPWD, CGO Complex, New Delhi.
2 (viii) Accepting Authority	:	Executive Engineer, DED-81, CPWD, CGO Complex, New Delhi.
2 (x) Percentage on cost of materials and labour to cover all overheads and profits.	:	15%
2 (xi) Standard schedule of Rates	:	DSR E&M 2025 with amendments and up to date corrections, Market rate, Minimum wages as per Govt. of Delhi or Central Government.
2 (xii) Department	:	CPWD
9 (ii) Standard CPWD contract form	:	GCC 2023 (Maintenance Work) for CPWD works as amended/ modified up to submission of the tender.

Clause 1

Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour license, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.	:	07 days
Maximum allowable extension with late fee 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above.	:	03 days on written request of contractor stating the reason of delay in procuring performance guarantee to the satisfaction of Engineer-in-Charge.

Clause 2

Authority for fixing compensation under clause – 2	:	Superintending Engineer, DC-8, CPWD, IP Bhawan, New Delhi.
--	---	--

Clause 2A

Whether Clause 2A shall be applicable : No

Clause 5

Number of days from the date of issue of :
letter of acceptance for reckoning date of
start.

10 Days**MILE STONE (S) AS PER TABLE GIVEN BELOW****Table of Milestone (s)**

S.No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	% Amount of tendered cost to be with-held in case of non achievement of milestone
-----NA-----			

Time allowed for execution of work	:	12 Months
------------------------------------	---	------------------

Authority to decide:

1. Authority to convey the decision of shifting of milestone and extension of time	:	Engineer-in-charge
2. Rescheduling of mile stone sand extension of time	:	Superintending Engineer, DC-8, CPWD, IP Bhawan, New Delhi
3. Shifting of date of start in case of delay in handing over of site	:	Superintending Engineer, DC-8, CPWD, IP Bhawan, New Delhi

Clause 6, :-

(Whether Clause 6 shall be applicable Electronic Measurement Book (EMB) through CPWD ERP portal – **Yes**

Clause 7 :-

Gross work to be done together with net payment/adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment.	:	20 Lakhs or mutually agreed
Clause 7 A:-Whether Clause 7A shall be applicable.	:	Yes

Clause 10A :-

List of testing equipment to be provided by :
the contractor at site lab.

**As per requirement at site & as per
direction of Engineer-in-Charge.**

Clause 10 – B(i) :-

Whether clause 10-B(ii) shall be applicable :

No**Clause 10C –Payment on Account of increase in****Price/Wages due to Statutory Order(s):****Not Applicable**

Clause 10 CA	Materials covered under this clause	Nearest material (other than cement, reinforcement bars and structural steel) for which All India Wholesale price index to be followed	Base price of all the materials covered under clause 10CA
Not Applicable			

Clause 10CC :-

Clause 10CC to be applicable in contracts with stipulated period of completion :
 exceeding the period shown in next column.
 Schedule of component of other Materials,
 Labour, POL etc. for price escalation.

Applicable

Component of civil (Except materials covered under clause 10 CA)/ Electrical construction materials expressed as percent of total value of work. Xm	30%
Component of labour expressed as percent of total value of work. Y	70%
Component of POL expressed as percent of total value of work. Z	-

Clause 11 :-

Specifications to be followed for execution of work	
ELECTRICAL WORKS:	a) CPWD General Specifications for Electrical work Part-I Internal -2023, amended up to date.
	b) CPWD General Specifications for Electrical work Part-II External -2023, amended up to date.
	c) CPWD General Specifications for Electrical work Part-III-Lift & Escalators - 2003, Part-VII D.G. Sets/ Part IV Substation-2013, Part V Wet Riser & Sprinkler Systems – 2020, General Specifications for Heating, Ventilation & Air-Conditioning (HVAC) – 2024 amended up to date.

Clause 12

Type of Work	Maintenance works
Authority to decide deviation up to 1.50 times Tendered amount.	Superintending Engineer DC-8, CPWD, New Delhi or successor thereof. The completion cost shall, in no case, exceed 1.5 times of the contract amount. (The completion cost includes Grass amount of the work done, amount of extra items, deviation and escalation amount administrable as per terms and conditions of agreement etc.
Authority to decide deviation upto 1.25 times of the tendered amount.	Engineering – in – charge
Authority to decide deviation beyond 1.5 and upto 2.0 times of the tendered amount.	Not applicable
Deviation limit beyond which clause 12.2 & 12.3 shall apply for building work / foundation work.	All deviated quantities shall be paid on agreement rates.
Deviation limit for individual items	No limit

Clause 16 :-

Competent Authority for deciding reduced rates

**Superintending Engineer, DC-8, CPWD, IP
Bhawan, New Delhi.**

Clause 18 :-

1. Electrically operated chase cutting machine
2. Electrically operated core cutting machine
3. Megger
4. Tong tester
5. Any other machinery, tools and plants as per requirement at site.

Clause 19C :- Authority to decide penalty for each default

As per Engineer-in-Charge

Clause 19D:-Authority to decide penalty for each default

As per Engineer-in-Charge

Clause 19G: Authority to decide penalty for each default

As per Engineer-in-Charge

Clause 19K: Authority to decide penalty for each default

As per Engineer-in-Charge

Clause 25 :

Constitution of Dispute Redressal Committee (DRC)		
For all claims in dispute		
1. Conciliator		ADG(Delhi), CPWD, Nirman Bhawan
2. Arbitrator	Appointing Authority	SE, DC-8, CPWD, IP Bhawan, New Delhi
3. Place of Arbitration		New Delhi

Clause 32 :-**“Requirement of Technical Representative (s) and Recovery Rates”**

S. No.	Minimum Qualification of Technical Representative	Discipline	Design. / Tech. Representative	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32	
						Figures (in Rs.)	Words
1.	Graduate Engineer OR Diploma Engineer	Electrical / Mechanical	Project Planning / quality / site / billing engineer	2 OR 5 respectively	1	Rs. 15000/- Per Month Per Person	Rs. Fifteen Thousand only.

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Diploma holder with Minimum 10 year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38 :-

- (i) (a) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of N.A printed by CPWD with upto date correction slips.
- (ii) Variations permissible on theoretical quantities:

a) Cement for works with estimated cost put to tender not more than Rs. 5 lakhs		N/A
for works with estimated cost put to tender more than Rs 5 lakh		N/A
b) Bitumen for all works.		N/A
c) Steel Reinforcement and structural steel sections for each diameter, section and category.		N/A
d) All other materials.		Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

Sl. No	Description of Item	Rates in figures and words at which recovery shall be made from the Contractor.	
		Excess beyond permissible variation	Less use beyond the permissible variation
-----NIL-----			

सहायक अभियंता(वै०) यो०
दि.वै.म.-८१,के०लो०नि०वि०,

कार्यपालक अभियंता (वै०),
दि.वै.म.-८१,के०लो०नि०वि०,

On Non-Judicial Stamp Paper Of Minimum Rs. 100
(CPWD, OM No. DG/CON/311 dated 20.10.2020)
(Guarantee Offered By Bank To CPWD In Connection With The Execution Of Contracts)
Form of Bank Guarantee for Earnest Money Deposit/Performance Guarantee/Security
Deposit/mobilization Advance

1. Whereas, the Executive Engineer (E), DED-81, CGO Complex, New Delhi-110003. on behalf of the President of India (hereinafter called "The Government") has invited bids under(NIT Number).....dated.....for.....(Name of work : **MOEI, & Fans, Power plug & street/Compound Light and RMO sub-station Equipments stand by 320 KVA D.G. set, Pump set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Compound Light & street lights, Operation of 2x500 LPH RO plant, AMC of RO plant, Sub station, Fire Fighting and fire alarm system ,Lifts, operation & Comprehensive maintenance of 1x320 KVA cummins make DG set)** The Govt. has further agreed to accept irrevocable Bank Guarantee for Rs. (Rs..... only) valid upto.....(date)*.....as Earnest Money Deposit from.....(name and address of the contractor).....(hereinafter called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.
OR** Whereas, the **Executive Engineer (E), DED-81, CPWD, CGO Complex, New Delhi** on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing number.....with.....(name and address of the contractor).....(hereinafter called "the contractor") for execution of work.....(Name of work: **MOEI, & Fans, Power plug & street/Compound Light and RMO sub-station Equipments stand by 320 KVA D.G. set, Pump set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Compound Light & street lights, Operation of 2x500 LPH RO plant, AMC of RO plant, Sub station, Fire Fighting and fire alarm system ,Lifts, operation & Comprehensive maintenance of 1x320 KVA cummins make DG set)** The Government has further agreed to accept an irrevocable bank Guarantee for Rs.....(Rupees.....only) valid upto.....(date).....as Performance Guarantee/Security Deposit/Mobilization Advance from the said contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.
2. We,(indicate the name of the bank).....(herein after referred to as "the Bank"), hereby undertake to pay to the Govt. an amount not exceeding Rs..... (Rs.....only) on demand by the Govt. within 10 days of the demand.
3. We,(indicate the name of the bank)..... do here by undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Govt. stating that the amount claimed is reqd. to meet the recoveries due or likely to be due from the Said contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.....(Rupees.....only)
4. We,(indicate the name of the bank)....., further undertake to pay the Govt. any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribubal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shal have no claim against us for making such payment.
5. We,(indicate the name of the bank)....., further agree that the Govt. shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the

said contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Govt. against the said contractor and forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said contractor or for any forbearance, act of omission on the part of the Govt. or any indulgence by the Govt. to the said Contractor or by any such matter or thing what over which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We,(indicate the name of the bank).....,further agree that the Govt. as its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Govt. may have in relation to the contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We,(indicate the name of the bank).....,undertake not to revoke this guarantee except with the consent of the Govt. in writing.
9. This Bank Guarantee shall be valid upto.....unless extended on demand by the Govt. notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.....(Rupees..... Only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

DATE

WITNESS

Signature....

Name and Address

Authorized signatory

Name

Designation

Staff Code No.

Bank Seal

Signature....

Name and Address

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

(CPWD, OM No.DG/SOP/14 dated 20.10.2020)
(Proforma for encashment of BG to be issued 14 days before its expiry)

भारत सरकार
केन्द्रीय लोक निर्माण विभाग
दि.वै.मं-81, सीजीओ कॉम्प्लेक्स,
नई दिल्ली

To,
The Manager

...(Name & Address of Bank)....

.....

.....

Subject : Request for encashment of Bank Guarantee number.....dated..... for Rs.....valid up to..... towards earnest money deposit/performance guarantee/security deposit/mobilization advance (As applicable)

Name of Contractor:

Dear Sir,

The above mentioned Bank Guarantee numberdated..... is valid up to..... In terms of paragraph 2 of the said Bank Guarantee, the Govt. of India hereby demands a sum of Rs.....(Rupees.....only) payable under this Bank Guarantee since this amount is required to meet the recoveries due from.....(name of the contractor)..... The amount shall be paid latest by.....(give date).....by transfer to account number.....

The aforesaid Bank Guarantee is being sent to you through.....(name and designation).....along with this letter.

Enclosure : Bank Guarantee

Yours faithfully,
Executive Engineer (E)
DED-81, CPWD
CGO Complex, New Delhi

Copy to:.....(Name & address of the contractor).....

GENERAL TERMS AND CONDITIONS

General

1.1 The copy of CPWD General Specifications are readily available in CPWD website www.cpwd.gov.in under the link publication.

1.2 Location:

Work shall be carried out at **CCRAS, Janakpuri, New Delhi**. The contractor is advised to visit the site of work to have an idea of the execution of the work; failure to do so shall not absolve their responsibility to do the work as specified in agreement.

1.3 The work shall be executed as per CPWD General Specifications for Electrical works part-I (Internal) 2023, Part-II(External)2023, as amended upto date, relevant I.E. Rules, industry standards, BIS/IES and as per directions of Engineer-in-charge. These additional specifications/conditions are to be read in conjunction with above and in case of variations; specifications given in these additional conditions shall apply. However, nothing extra shall be paid on account of these Specific conditions, as the same are to be read along with schedule of works for the work.

1.4 The tenderer should in his own interest visit the site and get familiarize with the site conditions before tendering.

1.5 No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

2.0 Commercial Conditions

2.1 Type of contract

The work to be awarded by this tender shall be treated as indivisible works contract.

3.0 Terms of payment

3.1 On account payments for part work (after stipulated and statutory deductions) as assessed by the Engineer-in-charge for the applicable items in the Contract shall be payable at part rates not exceeding the percentage indicated against the stages of work.

S.N	Stage of work	Percentage of Rate on Tendered Amount
a	Supply of material at site in good condition along with manufacture's test reports. (except exclusive supply item)	70%
b	On completion of installation in all respect.	20%
c.	Testing, Commissioning & handing over to the department.	10%

For other items, the part rates will be decided by the Engineer-In-Charge of the work and shall be binding on the contractor.

3.2 Security Deposit

Security Deposit shall be deducted from each running bill and the final bill to the extent of 2.5% of the gross amount payable subject to a maximum amount of 2.5% of the tendered value. The security deposit shall be released on the expiry of guarantee period of 12 Months stipulated in the contract. Bank guarantee will not be accepted as security deposit.

3.3 Performance Guarantee

The successful tenderer shall submit an irrevocable performance guarantee of 5% of the tendered amount as mentioned in Schedule 'E' and within the period specified in schedule 'F'. This guarantee shall be in the form of Demand draft / pay order or irrevocable bank guarantee bond of any scheduled bank or the State Bank of India in the specified format or in the form of Government security, fixed deposit receipt pledged in favour of Executive Engineer or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up stipulated date of completion plus 60 days beyond. This bank guarantee shall be kept valid till the recording of completion certificate for the work by the competent authority.

- 3.4 Income Tax, labourcess& other statutory deductions etc shall be made at source as per the prevalent laws. The deductions of Security Deposit, Income-Tax, Works Contract Tax etc shall be done after calculation of the above due payments as per clauses 3.1 to 3.3 and net payment shall be reduced accordingly.

4.0 Rates

- 4.1 The rates quoted by the tenderer, shall be firm and inclusive of all taxes including GST and all charges for packing forwarding, insurance, freight and delivery, installation, testing, commissioning etc at site including temporary construction of storage, risks, overhead charges, general liabilities/obligations and clearance from Local Body. However, the fee for the Local Body inspections shall be borne by the department.
- 4.2 The department will not issue Octroi exemption certificate.

5.0 Completeness of Tender

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections and all other items which are useful and necessary for efficient assembly and installation of wall fan and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.

6.0 Storage and Custody of Materials

For storage of sundry materials and erection equipments or else the agency has to make his own arrangements. No separate storage accommodation shall be provided by the department. Watch and ward of the stores and their safe custody shall be the responsibility of the contractor till the final taking over of the installation by the department.

7.0 Care of the Building

Care shall be taken by the contractor while handling and installing the various equipments and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

8.0 Completion Period

The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc arrangement of materials & equipments, delivery at site including transportation, installation, testing, commissioning and handing over the entire system to the satisfaction of the Engineer-in-charge.

9.0 Guarantee

- 9.1 All equipments shall be guaranteed for a period of 12 months (if not mentioned otherwise) from the date of taking over the installation by the department, against unsatisfactory performance and /or break down due to defective design, workmanship or material. The equipments or components, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer-in-charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

9.2 The tender shall guarantee among other things, the following: -

- a) Quality, strength and performance of the materials used as per manufacturers standards.
- b) Safe mechanical and electrical stress on all parts under all specified conditions of operation.

10.0 Power Supply

(A) Maintenance/Revenue work (i/c Repair/ Renovation/ Up-gradation/ Retrofitting work):-

- (i) Unless otherwise specified, 3 phase, 415 volts, 50 Hz AC power Supply (5 KW load) shall be provided by the department to the contractor at one point for execution of work at site. Termination switchgear and extension cable, however, shall be arranged/provided by the contractor. Further extension, if required, shall be carried out by the contractor himself.
- (ii) (a) For this purpose, the power supply shall be given at the main incomer unit of the electrical panel to be provided by the contractor. The termination of this feeder in the main incomer unit shall be the responsibility of the contractor and nothing extra shall be paid on this account.
- (b) Unless otherwise specified in the contract, further power distribution to the various equipment shall be done by the contractor.
- (c) Where the power supply has to be arranged by the Department at more than one point as per the terms of the contract, the termination of all such power feeders in the incomer of respective control panels to be provided by the contractor shall be the responsibility of the contractor and nothing extra shall be paid on this account.
- (d) The contractor shall use the power supply only for the bonafide use of the work. No work shall be done at site with the supplied power which is not required for execution of work or which pertains to work to be carried out for some other agreement/site or labour camp/office setup etc. The power supply shall be disconnected in case of such default and the contractor shall then have to arrange the required power supply at his cost. Further, if such incidence of use of electricity for other work or other agreement or labour/office setup or In case, any complaint regarding theft/misuse of electricity is found electricity charges @0.5% of Tendered amount or Rs10,000/- per occasion whichever is higher shall be recovered from contractors bill. A written complaint of client department along with its vetting/clarification by officer of CPWD of minimum rank of AE shall constitute a definite and sufficient proof for the alleged theft/misuse and recovery shall be made accordingly which should be non negotiable & non refundable and no claim in this regard, whatsoever, shall be entertained.
- (e) For use of electricity provided by department as mentioned above, following rates shall be recovered from contractors bills:-
 - (i) For Renovation/Maintenance/Upgradation/Retrofitting work: - 0.15% of Gross work done
 - (ii) For Manpower or Outsourcing work having labour component more than 90%, No electricity charges shall be recovered.
 - (iii) For Works involving steel fabrication / steel work component more than 50% of ECPT :- 01% of Gross work done

(B) Construction/Original work:-

For Construction & maintenance works pertaining to clients, Contractor shall submit undertaking for use of electricity either through his own source (local authority or DG set supply) or through Metered connection provided by client department (In case agreed by client department). The same undertaking shall be submitted alongwith PG otherwise it shall be presumed that contractor intends to use Client's electricity without meter and in such case 0.10 % of Gross work done shall be recovered from contractor's bill.

Further, if any incidence of use of electricity for other work or other agreement or labour/office setup or in case, any complaint regarding theft/misuse of electricity is found electricity charges @0.5% of Tendered amount or Rs25,000/- per occasion whichever is higher shall be recovered from contractors bill. A written complaint of client department along with its vetting/clarification by officer of CPWD of minimum rank of AE shall constitute a definite and sufficient proof for the alleged theft/misuse and recovery shall be made accordingly which should be non-negotiable & non-refundable and no claim in this regard, whatsoever, shall be entertained.

In any case, electricity connection at one point shall be provided by client/department, if available and agreed by client department. However, contractor shall be responsible for arranging power supply and there shall be no obligation from department to make available power supply for execution of work and while quoting, contractor has to keep in mind that power and water has to be arranged by contractor himself at his own cost and included in the quoted rates. No hindrance on account of non-availability of power supply from client department or CPWD shall be considered and contractor shall be responsible for any delay in work on account of above.

11.0 **Water Supply**

Arrangement of Water supply for testing & for successful installation & completion of the system shall be in the scope of successful firm without any extra cost.

12.0 **Acceptable Makes of Various Equipments**

The List of acceptable makes of various equipments/components/accessories have been indicated in "NIT". The tenderer shall work out the cost of the offer on basis of acceptable makes along with other terms & conditions of contract. Alternate makes are not acceptable. The items which are covered or not covered in the approved list of make in the contract, contractor shall submit at least three makes for approval by Engineer-in-charge. Only makes approved in writing by Engineer-in-Charge shall be used at site. Any material brought at site without prior approval of Engineer-in-charge may be rejected, even if the make is available in NIT and contractor shall be responsible for any such rejection of material.

- i. Contractor shall get approval of Makes & Models of material before their use at site. The technical specifications / catalogue shall also be submitted along with submission for approval. In case unapproved material is found to be used /installed at site or kept at site store for installation, department shall not only confiscate such material but also be at liberty to recover cost for removal of material from site from contractors bill.
- ii. **For each item to be used at site, contractor shall submit model number for each item of minimum three different make for approval by Engineer-in-charge.** Only approved make & model/material shall be used at site. Any material found at site which has not been approved can be rejected and shall not be paid. Contractor will be solely responsible for non-payment due to use of non-approved material. The submission for material approval shall be minimum two weeks before its use at site.

- 13.0 The successful tenderer should furnish well in advance three copies of detailed instructions and manuals of manufacturers for all items of equipments regarding installation, adjustments operation and maintenance including preventive maintenance & trouble shooting together with all the relevant data sheets, spare parts catalogue etc all in triplicate.

14.0 **Extent of work**

- 14.1 The work shall comprise of entire labour including supervision and all materials necessary to make a complete installation and such tests and adjustments and commissioning, as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in details in the tender documents in connection with this contract as this is a

turnkey job. The quoted rates shall be deemed to be inclusive of all kind of leads, lifts, clearing of site/jungle and nothing extra shall be paid, whatsoever on such account

- 14.2 In addition to supply, installation, testing and commissioning of complete installation,, following works shall be deemed to be included within the scope of work to be executed by the tenderer as this is a turnkey job.
- a) Minor building works necessary for installation of equipments, foundation, making of opening in walls or in floors and restoring them to their original condition / finish and necessary grouting etc as required.
 - b) All supports for rising mains, cables and MS channels for erection of panels &etc as are necessary.
 - d) Getting Local Body inspection done & obtaining approval for energizing the installation if required. However, necessary fees for inspection shall be borne by the Department.
 - e) Arrangement of electric supply (Single / Three phase) and water supply for execution and successful commissioning of the system.
 - f) Small wiring, inter-connection etc inclusive of all materials and accessories, necessary to comply with the regulations as well as proper and trouble free operation of the equipment.
 - g) Closing of the cable entry points in sub-station against seepage of water, rodents etc.
 - h) Tools and tackles required for handling and installation.
 - i) Necessary testing equipments for commissioning.
 - j) Watch and Ward of materials and/or installation and equipments till their handling over to the department.
 - k) All minor building works, such as equipments foundation if required cutting and making good holes, grouting of channels belts as required. Cutting and making good damages etc.
 - l) Provision of supports/clamps for equipments, cables etc wherever required.

15.0 **Works to be done by the Department**

Unless otherwise mentioned in the tender specifications the following works shall carried out by the department.

- i) To make the site available for the work. The contractor should select such equipment for installation as can be properly installed in the spaces shown in specification drawings. While no guarantee can be given minor modification required by the contractor if mentioned in the tender or intimated immediately after the receipt of tender shall be carried out if structurally possible.

16.0 **Exclusion and work to be done by other agencies:**

The following shall be excluded from the scope of the work:

- a) Major dismantling of any existing building work.

17.0 **Inspection and Testing**

- 17.1 All the tests certificate of the equipments are required to submit along with delivery of material.
- 17.2 Copies of all documents of routine and type test certificates of the equipment./cable carried out at the manufacturers premises shall be furnished to the Engineer-in-charge and consignee.
- 17.3 After completion of the work in all respects the contractor shall offer the installation for testing and operation.

18.0 **Validity**

Tenders shall be valid for acceptance for a period of 30 days from the date of opening.

19.0 **Compliance with Regulations and Indian Standards**

- 19.1 All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian standards related to the works covered by this specification. In particular, the equipment and installation will comply with the following:
 - i) Factories Act
 - ii) Indian Electricity Rules

- iii) BIS & other standards as applicable
- iv) Workmen's compensation Act
- v) Statutory norms prescribed by local bodies, Power supply co., etc.

19.2 Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

19.3 Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirement would make the tenderer liable for penalty of Rs. 500/- for each default. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of tenderer and recover the cost thereof from him.

20.0 Indemnity

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including their party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

21.0 Erection Tools

No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department. The successful tenderer shall make his own arrangement for all these facilities.

22.0 Cooperation with other agencies

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the construction of buildings, if any, and exchange freely all technical information so as to make the execution of this work/contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the tenderer himself.

23.0 The work will be carried out with least disturbance during shifting & shut down taken in consultation with the client department.

24.0 Verification of correctness of equipment at Destination

The contractor shall have to produce all the relevant records to certify that the genuine equipments from the manufacturers has been supplied and erected.

25.0 Painting

This shall include cost of painting of the entire installation.

26.0 Maintenance

26.1 Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of 1 year from the handing over of the installation.

27.0 Interpreting specifications

In the case of discrepancy between the schedule of Items, the specification and/ or the drawings, the following order of preference shall be observed:-

- (a) Schedule of Work.
- (b) Specific Conditions.
- (c) General Terms and Condition.
- (d) Drawings.
- (e) CPWD Specifications.
- (f) NBC – 2016
- (g) Indian Standard Specifications of B.I.S.

However, the order of preference provided is in general and in case of contradiction or otherwise, higher of specifications available in above documents/acts/codes shall be followed. Contractor is advised to quote the rates accordingly keeping in mind that highest of specification available shall be adopted.

- 28.0 General Terms & Condition, Special conditions & additional condition mentioned in part-B of NIT (i.e. Civil Component of work) shall also be applicable for part-C of NIT as well (Not applicable for Electrical exclusive contracts).
- 29.0 Excavation shall include hard rock excavation as well and nothing extra shall be paid on this account.
- 30.0 In case cable is laid at depth less than as mentioned in NIT/CPWD specifications recovery at Rs. 15 per 10 cm depth /meter of cable length shall be recovered from bill. This shall also be applicable for GI pipe work, DWC pipe work, Earthling work as well.
- 31.0 Challan & Test Certificate for all items amounting more than Rs. 50,000/- shall be submitted along with running bill in case both Challan & Test certificated are not submitted R.A. bill shall not be considered & contractor shall be responsible for any delay in payment.
- 32.0 Contractor shall submit cable route plan for approval before start of cable work. In case drawings for area /layout are not available with department these drawings shall be prepared by contractor at his on cost. For the purpose of assessment of work contractor is advised to visit the site to get familiar with site conditions before quoting his rates
- 33.0 All cabling & street light work shall be carried out as per CPWD specifications (External) 1995. Contractor shall obtain written clearance from JE/AE in charge of work before refilling the excavated trenches, otherwise it shall be presumed that contractor has not excavated required depth and item/component of item for excavation and refilling for trenches shall not be paid and contractor shall be responsible for such non payment.
- 34.0 Contractor shall be fully responsible for shifting of services encountered at site like electrical lines/power cables/ telephone, TV, data cables/electric poles/light poles/feeder pillar (whether energized or not)/dismantling and handing over such material to department. For shifting of such services including dismantling of such material required for smooth working at site, nothing extra shall be paid. Contractor is advised to visit site before quoting his rates.
- 35.0 Measurements shall be recorded for all measurements and levels of work done in the shape of electronic measurement book through CPWD ERP module as per CPWD OFFICE MEMORANDEM NO. DG/CON-Maintenance- 2020/338, dated 13/04/2023) instructions and details.”
- 36.0 It is clarified that being occupied building site will be made available in phases/parts only. The work may also be required to be executed during odd hours/night shift/holidays for which nothing extra shall be paid.
- 37.0 ~~The agency will prepare and submit all drawings sub head wise related to the E&M services as per site requirement for obtaining approval of the Engineering in charge or his authorized representative. Nothing extra shall be paid on this account.~~

ADDITIONAL TERMS & CONDITIONS

1. The work shall be carried out as per CPWD general specifications for electrical works Part-I (Internal) & II (External), Part III (Lift & escalator), Part-IV (Sub-Station), Part-V (Wet Riser/Fire Fighting system), Part VI (Fire Detection and Alarm system), Part VII (D.G. sets), Part-VIII (~~Gas Based Fire Extinguishing System~~) and HVAC system upto date as amended wherever applicable and entire satisfaction of Engineer-in-charge or his representative.
2. The contractor / Firm are advised to visit the site of work before quoting the rates, in order to ascertain the quantum and location of work.
3. Safety codes and labour Regulations: -
 - (a) In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for safety provision as per the statutory provisions, B.I.S recommendations, factory act, workman's compensation act, CPWD code and instruction issued from time to time. Failure to provide such safety requirement would make the tenderer liable for penalty for Rs. 200/- for each violation. In addition, the Engineer-in-charge, shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.
 - (b) The contractor shall provide necessary barriers, warning signals and other safety measures while executing the work or wherever necessary so as to arising accidents. He shall also indemnify CPWD against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accidents occurring due to any cause. The department shall not be responsible for any accidents occurred or damaged incurred or claims arising there from during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.
4. The contractor shall take all precautions for safety of the workmen. If any accident/ mis-happening occur the department shall not be responsible for the same. If any compensation is to be paid to the victim, the firm shall pay the same and no claim in this account shall be entertained by the department.
5. It shall be entirely the responsibility of the contractor to ensure that no unlawful act is done by his persons while on duty. In case any theft/ loss of departmental property takes place due to the negligence or carelessness of his personnel, the contractor will be held responsible and shall made good the same.
6. Department shall in no way be involved in any dispute of whatever kind, between the contractor and the staff engaged by him. Payment against the final bill however would be subject to clearance from labour authorities.
7. No T&P shall be issued to the contractor. The contractor shall make his own arrangement of tools for maintenance of Sub Station/ Electrical Installations equipments. Following T&P shall always be available at the site of work by the contractor: -
 - a. Tong tester, Test lamp
 - b. Gloves – 4 Sets.
 - c. First Aid Box
 - d. Crimping Tool Kit
 - e. Megar (5 KV HT and 500-volt LT)
 - f. Spanner Set.
 - g. Screw Driver set
 - h. LN Keys set
 - i. Earth Tester
 - j. Blower
 - k. Hammer, Drill Machine & Spade

1. Every wireman/ operator should have pliers, screw driver of different size, tester & test lamp for day to day maintenance work.
Before start of contract ,these T&P materials must be kept in a lockable box, if same is not available at site recovery for the same @ Rs. 100/- per day shall be deducted from the contractor bill maximum upto Rs.1000/- per month.
8. **The staff intended to be deployed shall be subjected to be interviewed by Engineer-In-charge or his authorized representative in consultation with client department/authority being important installations for their suitability for deployment and whose decision shall be final and binding.**
9. **The contractor is bound to submit the following details along with supporting papers of the workers proposed Sub Head wise to be engaged by him within 20 days from Actual Date of Start. If agency fails to submit required documents within 20 days, recovery shall be made @20000/- per day. After receipt of confirmation of their suitability from Engineer-In-charge or his authorized representative, they shall be deployed further on duty and un-suitable staff shall be replaced from the site by the agency immediately.**
 - a. **Name & Postal Address with ID Proof**
 - b. **Photograph with specimen signature**
 - c. **Qualification and experience**
 - d. **Bank accounts details**
 - e. **ESIC/ EPF Details if applicable**
 - f. **Registration details in Aadhar based Biometric Attendance system**
 - g. **Mandatory Police Clearance Certificate is to be arranged by the agency in respect of of the workmen as per guidelines issued by Govt. of India, Ministry of Home Affairs (Secretariat Security Organization) vide OM No.03/01/2024-SSO(RO) dated 18th June 2024.**
 - h. **The agency shall start the work by deputing the workmen at site through marking their attendance in Aadhar Based bio-metric machine only, excluding exigencies.**
10. For the passes of Labour, Police Verification, photographs, Copy of Aadhar Card has to be submitted well in time and the passes will be issued for 2 months only and the contractor has to again apply for passes. Necessary documents have to be submitted by the contractor.
11. The contractor shall prepare a Sub Head wise “Fortnightly / Monthly “duty chart with name and duty hours stated therein. The same shall be submitted to the JE (E) / AE (E) concern at least seven days in advance.
12. Shift timings can be changed as per the requirement at site and decision of the Engineer-in-charge.
13. The Engineers-in-charge reserves the right to ask the contractor to remove any default/untrained staff without assigning any reason.
14. All the cleaning material i.e. soap, duster etc shall be arranged by the contractor at his own cost for cleaning of Electrical Installation & fans, switch gear, DB, Main control panel, Water supply pump, Fire Alarm System/ D.G Set/ Sub Station equipment / Lifts etc. as per scope of work of this agreement. If cleaning of installation is not found satisfactory at any time, a recovery of Rs.500/- per occasion noticed per Sub Head shall be made from the bill of contractor.
15. The contractor shall furnish name & contact number of the persons, who should be contacted during emergency.
16. No staff shall leave his duty unless relived by his relievers, engineer in charge or the site reserves right to retain the staff on duty in the next shift if the relievers fail to turn up.
17. The rates quoted shall be inclusive of wages of Electrician / E&M Operator / Wireman/ Khallasi etc. i/c relievers, cleaning material, uniform and all taxes and duties etc. as applicable. However ESI/ EPF will be reimbursed to the contractor, on production of proof of deposit of the same with respected Govt. department.

18. All the complaint registers, log books, workers diary, test result registers or any other record for each sub head shall be supplied by the contractor, maintained by the staff of the contractor and handed over to the department on the completion/ termination of the contract.
19. In case the department staff is posted or due to some other reasons, the department reserve the right to terminate the contract in full or part thereof.
20. The contractor is bound to distribute the salary / wages to his worker by 7th of each successive month, positively, by ECS or RTGS or online mode as feasible. However department will make payment to the agency as per conditions mentioned as Schedule F of NIT, subject to availability of fund and fulfilment of terms and condition of agreement. Copies of the proof of above mode of payment to the workers will be submitted to the concerned AE(E)/ JE(E) with the bill, failing which no payment will be made to the contractor.
21. The contractor shall deduct worker subscription toward Provident Fund, ESI, as per rules, he shall deposit the same along with his contribution into the respective accounts of the worker and submit the detail to this office for verification.
22. The firm shall abide minimum wages Act as notified by the Govt. of NCT Delhi or Central Govt. whichever is higher and the payment to staff shall be made through online mode /ECS. The payment to the contractor will be released only after giving proof to the department for the same.
23. ESIC & EPF shall be reimbursed on actual basis on production of documentary evidence.
24. In case of any dis-obedience by the staff of the contractor with the occupants/ authorities/ engineer in charge and his authorized representatives, the contractor shall be responsible fully for such consequences and such staff shall be removed from the site immediately.
25. Any other minor addition / alternation in the existing installation shall be covered in the scope of the work and operation & maintenance of the same shall be included in scope of this agreement. Nothing extra will be paid on this account.
26. The contractor shall be responsible for the safety of the Electrical installations so long as the entire work i/c testing, fixing of all fittings and fixtures are completed and handed over back.
27. As the installations /equipments are in running condition the installation shall be handed over on” as is where is basis” and nothing extra shall be paid toward pre- maintenance However, if any deficiencies are brought to notice of department while taking over of installations by the contractor ,for rectification of which some parts are required. The same shall be arranged by the department and provided to the contractor free of cost but shall be replaced by he contractor for which nothing extra shall be paid.
28. After the expiry of the contract, the firm shall have to hand over complete installation to the department in proper working order. All defect and deficiencies shall have to be rectified by the firm to the entire satisfaction of Engineer-in-charge failing which the work shall be got done at the risk and cost of the firm.
29. Contractor shall be bound to execute such additional items which can be termed as logical, essential and necessary (even though not listed in schedule of work) for the effective execution of the work in totality, rates for such items of work shall be rationally analysed/derived and would be binding on the contractor.
30. The quoted rates should be inclusive of all taxes etc. i.e. GST and nothing extra will be paid.
31. The contractor shall provide two sets of summer uniform (shirt, pant & black shoes) and two sets of winter uniform (shirt, pant and woolen jersey) along the badge having name of worker, designation of worker and name of agency within 15 days of start of work. Failing which recovery @ Rs. 4000/- per worker for summer uniform and @ Rs. 8000/- per worker for winter uniform shall be made from the contractor bill and department will arrange the uniform for the contractor's worker.
32. Worker deputed on duty should be in uniform. If any worker found without uniform a recovery @ Rs. 25/- per day per worker shall be made from the contractor's bill.
33. **The attendance shall be marked in Aadhar Based Bio-Metric Machine and same shall be submitted with RA/Final Bill for Payment for the operational staff at site.**
34. **The contractor shall maintain Sub Head wise “attendance register “ in support of the Aadhar Based Bio-Metric attendance of the staff and the same shall be got periodically checked from**

JE(E) /AE(E) concern. Failure to which suitable recovery will be made from the contractor bill as decided by the Engineer-In-Charge.

- 35. Aadhar based Biometric Attendance system for all deployed workers shall be provided, installed and maintained in good working condition by the contractor at his own cost, for which nothing extra shall be paid. In case of any breakdown same shall be restored within 24 hours, else agency shall be imposed the penalty of Rs. 5,000/- per day. Independent Wi-Fi network/hotspot or internet connectivity to this machine must be provided by contractor at his own cost. In & out, both timings should be marked by every engaged staff in attendance machine failing which it will be treated as absent. However, during Covid period/any other circumstances if Govt. guideline restricted Aadhar based Biometric Attendance in that case JE / AE in-charge of work shall mark / verify manual attendance of the contractual staff deployed at site by the contractor. Any urgency In Round the clock shift duty, staff of current shift will relive only when staff of next shift join duty. All engaged manpower should join duty on time failing which a penalty charge @ Rs 50 for delay of every 30 minute or part thereof, after initial delay of 10 min will be imposed for every late attendance. Maximum permissible delay is 70 minutes (or as decided by Engineer-in-Charge). after which it will be treated absent. For early departure from scheduled off time, penalty charge will be imposed @ Rs 50 for every 30 minute or part thereof. Payment for manpower will be made by the department on the basis of Aadhar based Biometric system record. In case of defect in biometric machine and internet failure, staff will mark their attendance manually as per direction of Engineer-in-charge.**

36. Terms of payments for the Contractor

Payments to the Contractor shall be made, 'quarterly basis' after production of following documents:

- a. Documentary proof of disbursement of wages through ECS or RTGS or online made to the workers.
- b. The copy of salary wage register in the format as appended in NIT shall be produced with the R/A or final bills.
- c. Proof of deposit of provident fund and ESIC contribution to the respective authorities.
- d. Copy of relevant period attendance record generated through **Aadhar Based Bio-metric attendance System**.

(SUB-HEAD-I) (Operation & Maintenance of EI Work)

1. The contractor will have to depute following staffs:-

- a) Wireman - 02 Nos. (6:00 AM to 2:00 PM, 2:00 PM to 10:00 PM) on all working days except Sunday & Holidays**
- b) Khallasi - 01 No. (In General Shift) on all working days except Sunday & Holidays**

2. Qualification of Deputed Manpower and recovery in case of absent.

Academic Qualification: (i) ITI Diploma or equivalent qualification in the trade.

Professional Qualification:

- (a) Possession of Electrical wireman permit/ workman's competency certificates/Electrical workman's/ lineman license (certificate of competency class-II) or any other equivalent certificate.
- (b) Must have minimum practical experience of 3 years in the line

Khallasi:- Should be physically & mentally fit for unskilled work & must have six months experience in the relevant field

In case of any staff found absence from duty, the recovery will be made at the following rates from the contractor bill.

- 1. Wireman - 2200 per day / shift.
- 2. Khallasi – 1700/- per day/ shift.

(SUB-HEAD-II) (Operation & Maintenance of Sub-Station & DG Set)

1. The contractor will have to depute following staffs:-

- a) Wireman - 03 Nos. (Round the clock, one in each shift) all day i/c Sunday & Holidays.
- b) Khallasi - 01 No. (Single Shift) all working days excluding Sunday & Holidays.

Note: Wireman will also Operate DG Set as per requirement of site and directions of Engineer-in-charge.

2. Qualification of Deputed Manpower and recovery in case of absent.

Academic Qualification: (i) ITI Diploma or equivalent qualification in the trade.

Professional Qualification:

- (c) Possession of Electrical wireman permit/ workman's competency certificates/Electrical workman's/ lineman license (certificate of competency class-II) or any other equivalent certificate.
- (d) Must have minimum practical experience of 3 years in the line

Khallasi:- Should be physically & mentally fit for unskilled work & must have six months experience in the relevant field

In case of any staff found absence from duty, the recovery will be made at the following rates from the contractor bill.

- 1. Wireman - 2200 per day / shift.
- 2. Khallasi – 1700/- per day/ shift.

1.0 Scope of Work

The scope of work includes Operation and Running/Preventive maintenance of 11 KV Sub station round the clock in three shifts on all days i/c Sunday and Holiday at CGO Complex, Lodhi Road, New Delhi

2.0 The following activities is intended to be covered under this contract:

- a) Operation and maintenance of Transformer, HT Panel, LT Panel, AMF Panels, and Electrical Distribution Panels etc. as specified in B.O.Q. or as directed by the Engineer-in-charge or his authorized representatives.
- b) Watch and ward of all the installations.
- c) Taking preventive measures to avoid complaints.
- d) Maintenance activities carried out as per schedule should be noted in the maintenance register. When test is carried out, the test result should be recorded.
- e) Performing the daily / weekly / monthly / quarterly / six monthly / annually checks as detailed below and taking remedial action for proper maintenance.

S.No.	Activity	Periodicity
1	Read Instruments	Daily
2	Inspect equipment rooms and equipments	Weekly
3	Check transformer Breather and oil	Monthly
4	Test insulation oil	Annually
5	Check Switchgear (HV & MV) and panels	Annually
6	Check Safety items and others	Annually
7	Inspect transfer internals (Oil filled transformers only) Installation	20 years after

3.0 GENERAL NOTES

1. Follow all safety procedures during maintenance activities [See IS Code No. 5216 (Pt. 1 & 2) 1982 or Appendix E to CPWD Specifications for EI Works (Pt. I – Internal 2023) for more details].
2. Only authorize persons should be permitted handle electrical equipment. Names keep of authorized person should be displayed in the main MV Panel room (Rule 3 of IE Rules). When maintenance activities are performed, another person should accompany the one carrying out the tasks.
3. ON LINE maintenance should not be undertaken in sub stations (However there is no bar to carry out dehydration of transformer ON). It must be ensured that supply lines concerned are isolated and proved isolated, considering also any likely back feeding.
Caution boards should be displayed while so as to avoid accidental switching on.
4. Supplement this schedule with recommendations of manufacturers of the respective equipments. Proper record of every maintenance activity must be kept as per this schedule of maintenance. Result of all tests must be also recorded therein. However, if there is any repair or replacement done, the same should be recorded in the in the History Book.
5. It is necessary that the JE (E) and AE (E) should have a thorough knowledge on the equipment and their operation, and the distribution system maintained by them. The correct schematic diagram of distribution should be displayed in MV panel rooms for the respective sections of distribution. Detailed literature on the equipments panel wiring diagram and maintenance instructions or procedures etc. should be collected and kept at site.

4.0 SCHEDULE RELATED NOTES

1. Logging of Instruments.
 - a) Instruments may be logged daily, only in attended sub-station. In case of unattended sub-stations, logging should be done every month or at shorter intervals as feasible. As far as possible logging may be done in peak loading time, so as to monitor the pattern of loading. Periods of power cuts and shut downs should be indicated in attached sub-stations.
 - b) Logging is needed for voltage (HV / MV / Battery), current (HV / MV / Battery) power (MD), temperature (max) of oil, ambient temperature and pf (and frequency where frequency meter is already installed).
 - c) Wherever facility of recording pf is not already provided. Arrange to get it installed early.
 - d) If any panel instrument is defective, get it repaired early.
 - e) Load on each outgoing feeder may be checked by chip on ammeter, once in 3 or 4 months, preferable during peak seasons, so that redistribution, if any needed among the feeders could be further examined and affected.
2. Cleaning/Checking of Equipments etc.
 - a) Clean up equipment rooms; remove cobwebs, birds' nests etc. if any. Check that the ventilators are clear exhaust fans and fans are operational. The approach to equipment rooms, and yards in outdoor installation should be clear.
 - b) Wipe out dirt / dust from external surface of equipments.
'CAUTION': Never attempt to clean equipments with exposed bare bushing, with supply ON
Periodicity of cleaning such equipment may be increased to one a month or longer as felt on order, so as to avoid frequent switching operations.

- c) Observe if any abnormal noise, vibration, smells (usually due to overheating), excess temperature etc. if so, and investigate the reason immediately. Radiators of transformers, LT bus bar chambers, and LT SFU / FSUs and main LT Cables (near terminations) may be touched externally to feel any undue heating. Apart from smell, the shine of PVC may reduce due to local heating. Compound may expand and come out of cable boxes due to local heating in compound filled cable terminations (usually old installations).
- d) Look for oil leakage from Transformer radiator / body bushing / valves and attend.
- e) Check the trip battery, Top up as necessary with distilled water in lead Acid batteries. Check the specific gravity Examine the trend of the voltage reading from log book. Self the drop is considerable; the cause needs to be investigated. Clean the battery terminals if required and apply grease to avoid corrosion.

3. Breather and oil check:

- a) Silica gel is blue when dry. The transformer breathes due to varied over a period of time. When silica gel absorbs moisture while breathing in lower loads, it turns pinkish. When the breather content is over 50% pinkish, reactive the silica gel (till it turns blue again) by heating directly under the sun on a metal surface, or over an electric heater (Caution: be careful, not to overheat). Check that air passage is clear in breather, when reactivating the silica gel.
- b) Check the level of oil in conservator tank. Arrange to top up with dry, tested oil, if necessary. Do not over till beyond the upper limit level so as to allow expansion of oil when warm. Oil should not split into the breather. Investigate the reason if the level changes too often.

4. Test Insulating oil:

- a) Insulating oil used in transformers and in OCB's IS 1966-1983 indicates the list of various test, giving reference to the relevant IS numbers for test procedures, some of which are extracted briefly as under.

S.No.	Test For	IS Code for Test	Permissible limit
i)	Electric Strength	IS 6792 – 1992	40 KV for 1 min (min)
ii)	Water Content	IS 335 – 1993	35 ppm. (max)
iii)	Neutralization Value (Total Acidity)	IS 1488 (P2) – 1967 IS 1866 – 1983 (Appendix B)	0.5 mg KOH/g of oil (max)*

Presence of moisture lowers the electric strength and resistivity of oil and also accelerates deterioration of paper used as insulating material.

This is the maximum value. If the value exceeds 0.3 mg/g testing for acidity more frequently will be necessary.

- b) Oil may be tested for sludge content (as per Appendix A to IS 1866 – 1983), if the oil colour is dark, or once in 2 years if otherwise.
- c) Oil in OCB's and oil switches may get carbonaceous material due to arcing during switching. While annually the electric strength should be checked, this test is also needed if the breakers have operated under fault condition. Carbonaceous materials and moisture may produce tracking in phenolic / paper insulation materials.

5.0 Annual checks of switchgear (HV and MV) and panels.

- a) The team “Switchgear” covers SFU / FSU’s, MCCB’s, CB’s / OCB’s in MV side and OCB’s / VCB’s / SF6 breakers oil switches (with or without fuses) isolators etc. on HV side. The purpose of this activity in the schedule is to examine the interiors of the panels and the switchgear so as to ensure that right fuses are in position, mechanical operations and smooth, bushings are not cracked / chipped, electrical contracts are in order and dirt if any is removed. You may need assistance from manufacturer / his authorized representative for some of the operations. The first step is therefore to isolate and were provide to get to ‘service’ position and in the case of withdraw able type items, to draw out from the panel.
- b) Clean the interior thoroughly. Check the safety shutters (where provided) have closed properly.
- c) Examine the moving isolating contracts for discoloration, pitting or sputtering. If so, examine the fixed contract as well as (you may need to manually open the safety shutters). This problem may arise due to bad alignment of contracts. Sometimes there may be discolored / hardened grease, this will require cleaning by suitable solvent and regreasing with approved type of grease.
- d) Arcing contacts and main contacts should than be similarly examined. Do not use abrasive paper to clean the contracts, if there is any residue / pitting. Check the architects to be intact, clean and without any obstructions.
- e) Mechanically linkages should be lubricated, wherever required. Test for free movements of all operations. In the case of electrically operated breakers, megger test the motor / solenoid and check for their free movement. Lubricate as necessary.
In the cases of outdoor gang operated switch, free operation of the switch (and proper alignment of all the 3 phases) should be checked.
- f) Check the HRC Fuses are in position and the safety interlock (with the front cover) is operational.
- g) Connections at bus bars, bus duct and switch gear (including control wiring) should be checked. Tighten as required. Clean the supports look for any possibilities of tracking on surface.
- h) Relays should be tested and setting checked. Relay coil insulation should be checked with LT megger.
- i) Plug opening / hole (if any) in switchboards, effectively.
- j) Megger test the panel and check the interior to be free from any foreign matter (like cotton waste / flint, dislodged nuts / washers / cut tapes etc.) before energizing again.
- k) Paint the outdoor steel structure, where provided.
- l) Oil may be tested for sludge content (as per Appendix A to IS 1866 – 1983), if the oil colour is dark, or once in 2 years if otherwise.

6.0 Check of safety items & others

- i. Check all safety items (insulating mat, caution boards, danger boards, firth aid kit, fire protection items, Resuscitator (Where provided), first aid chart etc. Check also whether telephone numbers of officers, supply agency (license), fire brigade and hospital and displayed on the painted board in MV panel room.
- ii. Check that the correct schematic diagram of distribution is displayed in MV panel room.
- iii. Test the earth resistance of each electrode. Preferably during summer; and also the integrity of earth connections.
- iv. Check the trip battery performance from log book readings and charging system for satisfactory condition. Batteries (Even maintenance free batteries) may need to be replaced in 3 or 4 years depending on their use. Get expert advice from manufacturer before deciding on replacement.
- v. Check the condition of spare items; if any, kept in store.
- vi. Where the sub-station building is single stories, inspect the roof and roof drain before monsoon, so as to avoid water stagnation.

- vii. Check the cables ducts to be free from extraneous items (rubbish / water) and that duct covers are intact.
 - viii. The period of 20 years is a nominal figure. This may be modified suitably in individual cases, going by the various observations on oil, the test results, loading and transformer behavior.
- 7.0 Department reserve the right to reject / accept the staff without assigning any reason.
8. After receipt if confirmation of their suitability for the job he shall deploy them on duty.
9. All employee deployment by the contractor is bound to comply all rules and regulations of the department.
10. The following consumable materials & tool items for maintaining the Sub-Station set shall be arranged by the firm at their own cost and shall keep ready at site in sufficient quantity under the scope of work for which nothing extra shall be paid.
- a) Battery acid, distilled water, battery thimbles clamp, grease, connectors, testing lamps, PVC insulation tapes, old dhoti, duster, vim, brooms, C.T.C cleaning detergent, torch, cells, tester, panel knobs, welding rod, petroleum jelly, log book and lib oil for topping up etc.
 - b) Tool & plant required to operate, repair servicing and maintain the Sub-Station like spanners, goti sets, screwdriver, crow bars, megger, multimeter, blower crimping tool, torch hand lamp bucket, container, table, chair, almirah & other unforeseen T & P.
11. Spare parts & accessories of Sub-Station and panels (which are not included for supply under the firm's scope of work) required for replacement if made available to the firm by the department material shall be deposited to the JE (E) in charge store.
12. Remarks and observations regarding maintenance / malfunctioning of sub-station panels and accessories recorded in the log book / conveyed through message / letter shall be complete within Sundays failing which same shall be got rectified by the department at the risk and cost of the firm without entering in to any correspondence and necessary recovery shall be made from the bill of the contractor.
13. The installation shall be handed over on, as is where is basis and nothing extra shall be paid toward pre-maintenance as the equipments are in running condition. However, in case parts are required, the same shall be arranged by the department free of cost but shall be replaced by the contractor for which nothing extra shall be paid.
14. After the expiry of the contract, the firm shall have to hand over complete installation to the department in proper working order. All defect and deficiencies shall have to be rectified by the firm to the entire satisfaction of Engineer-in-charge failing which the work shall be got done at the risk and cost of the firm.

Note:- Failure to do above daily / monthly / quarterly / six monthly / Yearly checks shall attract a recovery as per decision of Engineer-In-charge & decision of Engineer-in-charge shall be final & binding to agency

(Operation & Maintenance of DG Set)

1. Six Monthly 'B' Check servicing of the DG Sets is to be carried out by the firm. **The agency shall arrange the spares from OEM/authorized service dealer only. The firm shall arrange support letter from respective OEM of DG set with regard to it.**
2. Major overhauling and top overhauling are not covered in the scope of work. But the firm will have to inform the department if they notice any type of major overhauling required.
3. Any running / operation complaints must be attended within two hours after receipt of Intimation.
4. The firm will have to complete all the preventive maintenance job of the DG Sets within one day.
5. All the electrical termination in AMF panels, DG Sets alternators shall be checked for tightness and cleanliness.
6. Any accident/miss-happening occurred during the execution of the work shall be the sole responsibility of the firm and the firm should get his labour insured for this work.
7. The contractor shall be responsible for the safety of existing installation & safety of working staff and damage to existing installation shall have to be made good by contractor at his own risk and cost.
8. **Following are the preventive checks to be done by the staff deployed mandatorily:**

Daily checks:

1. Keep the DG set room clean. Wipe out dirt from external surface of engine, generator and control panel.
2. Check the level of :
 - (i) Diesel in daily service tank.
 - (ii) Lubricant oil in engine crank case.(Must be check before start of engine or after 20 mins after stopping of running engine)
 - (iii) Check water level; top up to recommended level (water PH should be in between 7 to 9).
3. Inspect the engine any leakage of Diesel, Engine oil (lubricant oil) or coolant in respective system.
4. Check the selector in control panel is in "AUTO" mode.
5. Checking the engine for its smooth running and visual inspection of un-usual noise and color of the smoke from the exhaust.
6. Check battery condition and tightness of battery leads
7. Maintain log book with accuracy of readings of :
 - (i) voltage of supply
 - (ii) Engine battery voltage
 - (iii) Oil Pressure at idling speed & rated speed
 - (iv) Coolant water temperature (On Load)
 - (v) No of hour of operation
8. Checking of proper functioning of various instruments of dashboard instrument panel
9. Checking and adjusting Fan Belt and Water Pump belt tensions.

Weekly checks:

1. Check the automatic starting the switching off the main supply of AMF panel.
2. Run the DG set on load for 15 min. Observe any abnormality of noise, vibration, bearing surface heating, engine pick up, voltage level frequency.
3. Check the level of electrolyte in the battery of the engine. Top up with distilled water in the battery as necessary. If battery needs charging, arrange the charging early and also examine whether trickle charger (if provided) is defective.
4. Check whether all panel lamps, fuses and instrument are healthy in the control panel.

Monthly check :

1. Check engine radiator for air restriction if any. Clean up. Check the condition of drive belt, hose and radiator cap.
2. Clean the battery terminals and apply grease to prevent corrosion. Check specific gravity of the electrolyte.
3. Check the exhaust system for leakage, corrosion and vibration. See whether the exhaust smoke is not very dark.
4. Check there are no restrictions to air flow in air cleaner. Clean the Air Filters to increase their life as well as proper inflow of Air.
5. Check that oil heater is functional.
6. Check coupling with alternator for any sign of fatigue.
7. Check carbon brushes if applicable for their proper length and spring tension (in case of conventional alternator).

Six monthly checks:

1. Inspect the electrical control panel and starters to see that all power / control contact are clean, all terminations are sound; and all fuses are intact. Blow out dirt from machine windings and panels by a blower, check brusher (where provided) of alternators.
2. Inspect all cable end terminations, including control cables. Tighten as required.
3. Check all safety controls and alarms in the set supply system.
4. **B-Check-1 servicing as per OEM standard practices.**
5. Check the belt tension, Tighten if required.

Annual check:

1. **B-Check-2 servicing as per OEM standard practices.**
2. Inspect the fuel tank of any sedimentation. Clean up.
3. Check shaft alignment, and condition of anti-vibration mountings, in case any abnormal noise or vibration is observed.
4. Blow through radiator core in a direction opposite to the normal flow of air (Reverse Flushing)
5. Conduct megger test (during monsoon) on all cables, mains and control wiring motors and earth test (during summers)
6. Calibration of Fuel pump and injector should be done as per manufacturers recommendations.

EXCLUSION:-The following works are excluded from the scope of this Sub-Head of work of this contract.

1. The diesel oil for running the DG Sets shall be arranged and supplied by the department in 200 Ltrs. Barrels at site store free of cost, which will be filled in service tank by the agency free of charge.
2. The Consumption statement of HSD oil shall be prepared monthly by the contractor in the prescribed Performa as per detail below & shall be submitted to Engineer-in-charge, that would be a part of contractor bill. Period of statement to

S.N.	Last balance of HSD Oil in Fuel Tank	Poured HSD Oil in Fuel Tank drg this period	Total	Balance of HSD Oil in Fuel Tank at the end of this statement	Total HSD Oil consumed drg this period	Total run of DG Set for this period	Consumption	Remarks
	A	B	A+B=C	D	C-D=E	F	E÷F	

Note:- Failure to do above fortnightly / monthly / quarterly / six monthly / Yearly checks shall attract a recovery as per decision of Engineer-in-charge & decision of Engineer-in-charge shall be final & binding to agency.

SUB-HEAD-III (Operation & Maintenance of Fire Fighting and Fire Alarm System, RO Plant)

1. The contractor will have to depute following staffs:-

- a) Fire Operator – 03 Nos. (Round the clock, one in each shift) on all days i/c Saturday, Sunday & Holidays**

Note: Fire Operator will also operate Fire Alarm system & RO Plant as per requirement of site and directions of Engineer-in-charge.

2. Qualification of Deputed Manpower and recovery in case of absent.

Academic Qualification: (i) ITI Diploma or equivalent qualification in the trade.

Professional Qualification:

- (e) Possession of Electrical wireman permit/ workman's competency certificates/Electrical workman's/ lineman license (certificate of competency class-II) or any other equivalent certificate.
- (f) Must have minimum practical experience of 3 years in the line

Khallasi:- Should be physically & mentally fit for unskilled work & must have six months experience in the relevant field

In case of any staff found absence from duty, the recovery will be made at the following rates from the contractor bill.

- 1. Fire Operator - 2200 per day / shift.

1.0 Scope of Work

The scope of work includes maintenance of addressable fire alarm system installed and following activities are covered under this contract:

- i. Operation and maintenance of installations of B.O.Q. as directed by the Engineer Incharge or his authorized representatives.
- ii. Performing the daily/weekly/monthly/quarterly/six monthly checks and taking remedial action for proper maintenance.
- iii. Cleaning of all equipments.
- iv. Watch and ward of all the equipments (Internal and external both).
- v. Attending to day to day complaints and repairing of the installation i/c providing necessary spares for the fire alarm panels and exit sign boards within the quoted rates.
- vi. **Conducting of fire drills.**
For making the users familiar with the system, Operation of the system shall be demonstrated so that all users are confident of the system and aware of their duties and responsibilities during fire. Fire drill must be conducted once a month in the presence of Engineer Incharge or his authorized representatives along with representatives of Client department. Failure in conducting fire drill shall invite recovery @ Rs. 10,000/- at every instance.
- vii. **Healthiness of system.**
The healthiness of the system in Automatic Mode shall be checked through weekly testing. During the weekly testing a block shall be taken up and all complete that position of, fire alarm system and public address system of the building shall be operated and checked.

- viii. During the subsequent week different blocks/wings shall be selected so as to ensure that all the installation of the building is checked once in a months.
- ix. The details of such weekly testing shall be conducted in presence of JE(E) and AE(E) in charge to the extent feasible and shall be recorded in register along with date, timing and findings.
- x. For watch and ward purpose, the firm may deploy staff as felt necessary and adequate.
- xi. Spare parts & accessories of the installations, if required, shall be replaced by the firm and the expenditure incurred by the agency will be paid to it by the department as an extra item of work.
- xii. All dismantled material shall be deposited to the JE (E) incharge at his site store.
- xiii. Remarks and observation regarding maintenance / malfunctioning of installations recorded in the log book / conveyed through message / letter shall be attended within 24 hrs. Failing which same shall be got rectified by the department at the risk and cost of the firm without entering into any correspondence and necessary recovery shall be made from the bill of the contractor.

2.0 Execution of Work

- 2.1 Before starting the work, the contractor shall take over the inventory as detailed above and any shortcomings noticed at the time of taking over shall be brought out specifically. Failing which it shall be presumed that the site has been taken over in perfect working order.
- 2.2 On completion of the work against the agreement the inventory shall be handedover as directed by Engineer-in-charge or is authorized representative. In case any short fall or damage to the installation is noticed, the contractor shall make good the same with same make equipment of as directed by Engineer-in-charge. Failing to do so, the recovery shall be affected from any payment due to the contractor. The decision of Engineer-in-charge shall be final and binding.
- 2.3 The following tool items for maintaining the installations shall be arranged by the firm at their own cost and shall be kept ready at site in sufficient quantity under the scope of work for which nothing extra shall be paid.
 - i) Tool & plant required to operate, repair, servicing and maintain the installations, like spanners, goti sets, screwdriver, crow bars, multimeter, vacuum cleaner and such other relevant T&P.

3.0 Periodic checks to be conducted:

Daily Checks:

- a) Check the power supply of all the S.I. panels in buildings/ floors.
- b) Check the LED's of panels through panel lamp test switch.
- c) Check operational readiness of the system during main failure.
- d) Check whether signals of fire and fault condition are transmitted from SIP's main control panel.

Weekly Check:

- (a) Clean all the control panel, sounders and call boxes.
- (b) Check the healthiness of battery and add distilled water/ acid as reqd.
- (c) Check the fault indication of the MIP&SIP's/mimic panel, and rectify the same

Monthly Checks:

- a) Check all zone panels & C & I panel & repeater panel.
- b) Check the talk back units from both ends and PA system of C & I Panel.
- c) Check & test the performance of all the hooters/ alarms/ speakers/ talk back units.
- d) Check the performance of the all manual call points. Check its glasses
- e) Check the battery terminals and replace old grease with new to prevent corrosion.
- f) Perform fire drill.

Six Monthly Checks:

- (a) Cleaning of all fire detectors.
- (b) Meggar test of wiring of FAS.

- 2 All materials, spares, i/c batteries, amplifiers, & electronic devices cards for zonal indications including ICS, diodes, LED's and all other material required to keep the installation in healthy operational condition all the times shall be arranged by the contractor. Nothing extra shall be paid on this account by the department.
3. All the defects / fault condition should be removed and the system should be brought to working order within 24 hrs. However, if there is a requirement of replacement of spares, the same shall be done by the agency through OEM/its authorized service dealers. The expenditure incurrant on cost of the spare shall be borne by the department.

Note:- Failure to do above daily / monthly / quarterly / six monthly / Yearly checks shall attract a recovery as per decision of Engineer-Incharge & decision of Engineer-incharge shall be final & binding to agency

(Fire Fighting and Wet riser system)

1-0 Scope of work

- 1.1 The scope of work includes operation and maintenance of fire Fighting Equipments installed in NIC Block 'A', CGO Complex, Lodhi Road, New Delhi.
- 1.2 The following activities are intended to be covered under this contact.
 - a.) Operation and maintenance of installations as per B.O.Q. & as directed by the Engineer In charge or his authorized representative.
 - b.) Performing the daily/week/weekly/monthly/quarterly/six monthly/annually checks as detailed given below and taking remedial action for proper maintenance.
 - c.) Watch and ward of all the installations.
 - d.) Taking preventive measures to avoid complaints & break down.
 - e.) Conducting of fire drills.
For making the users familiar with the system, fire drill shall be carried out. Local fire service and nodal officers in charge of various parts of the building shall be involved in conducting fire drill. Operation of the system shall be demonstrated so that all users are confident of the system and aware of their duties and responsibilities during fire.
 - (f) Healthiness of system.
The healthiness of the system in Automatic Mode shall be checked through weekly testing. During the weekly testing a particular block shall be taken up and all internal hydrants and adjoining yard hydrants of the building shall be operated and checked, for automatic functioning of jockey and main electrical pump
 - (g) During the subsequent week different blocks shall be selected so as to ensure that all the internal hydrants and yard hydrants of a block are checked once in three months.
 - (h) The details of such weekly testing shall be conducted in presence of JE(E) and AE(E) incharge to the extent feasible and shall be recorded in register along with date, timing and finding.
 - (i) Remarks and observations regarding maintenance / malfunctioning of wet riser, yard hydrant, sprinkler, fire fighting pump and panels, accessories recorded in the log book / conveyed through message / letter shall be attended within 24 hrs. failing which, same shall be got rectified by the department at the risk and cost of the firm without entering into any correspondence and necessary recovery shall be made from the bill of the contractor.

2.0 Terms of execution of work.

- a. All the cleaning material i.e. soap, duster etc. shall be arranged by the contractor at his own cost. If cleaning of installation is found unsatisfactory at any time, a recovery of Rs. 200.00 per occasion shall be made.
- b. The department reserves the right to terminate the contractor in full or part there of or can shift any worker at any other site, as required, without assigning any reason.

- c. The contractor shall replace the staff, in the event of misconduct by him.
- d. The installation shall be handed over on, as is where is basis and nothing extra shall be paid toward pre-maintenance as the equipments are in running condition.
- e. After the expiry of the contract, the firm shall have to hand over complete installations to the department in proper working order. All defect and deficiencies shall have to be rectified by the firm to the entire satisfaction of Engineer-in-Charge failing which the work shall be got done at the risk and cost of the firm.

3.0 Maintenance Schedule For FIRE Fighting System and Wet riser system

Twice a week: -

- a) Check the complete system inventory such as pumps, valves, fire fighting fitting at every outlet and carrying out the diagnostic tests on the main control panel & general health of the system.
- b) Check the pipe line, joints/flanges, pumps sleeves for leakage and cleaning the panels etc. from the exterior with a damp cloth.
- c) Check the operability of motor, pumps at least by running for 5 minutes and recording of parameters such as voltage, current, pressure, oil pressure etc. as observed and checking battery condition and ensuring its appropriate charging.
- d) Check the availability of water in the pump in case of fire fighting system and checking the system availability on mains as well as on batteries.
- e) Check and maintenance of appropriate pressure in the pipe line incase of fire fighting and whether on mains failure system is automatically switched over to stand by supply batteries.

Fortnightly Checks:

- a) Checking / air blanking of installations.
- b) Checking of nuts and bolts and tight if necessary.
- c) Checking of lugs, thimbles, terminal blocks of electric motors, switches, starters and control accessories for their appropriate condition and indications, take remedial steps if required and checking of distilled water level in the batteries and top up if necessary.
- d) Checking of pump's coupling for appropriate alignment and rectify if necessary.
- e) Checking the battery terminal conditions, clean them with brush and apply petroleum jelly and cleaning battery chamber with blower.
- f) Checking of gland packing and add more packing, if required.

Monthly Checks:

- g) Run the pumps set at least 10 minutes and check the operation for vibration, excessive heating, noise and alignment.
- h) Check the functioning of all the valves and accessories by actual opening and closing them.

Half yearly Check:

- i) Apply grease and avoid over greasing.
- j) Checking of gland packing.
- k) Checking of for play in bearing, replace if necessary.
- l) Checking of accuracy of relay operation.

Yearly Checks:

- m) Calibrate all ammeters voltmeters pressure gauges and other indicating instruments.

SUB-HEAD-IV (AMC of RO Plant)

1. Proper quantity of material shall have to arrange by the tenderer for proper operation & comprehensive maintenance of R.O. system.
2. The material to be used at site shall have to got approved from Engineer-in-charge before use at site.
3. Any damage done to the building/ equipment shall be made good by the contractor at his own risk & cost.
4. Bad workmanship is not acceptable.
5. The firm shall be responsible for the genuineness of material and if found defective/ duplicate at any state the contractor/ firm will be responsible & have to replaced the same free of cost.
6. Comprehensive maintenance of R.O. plant will be carried out as per manufacturer recommended & testing of water shall be done at least once in a week and report shall be recorded in the log book. The R.O. system shall be maintained properly to keep the system healthy. If Engineer-In-Charge or representative of department found testing of water is not upto the standard recovery @Rs.1200/- per day shall be done.
7. Firm will provide skill worker having experience in operation & maintenance of R.O. plant.
8. After the completion of the work, system shall be handed over to the department in healthy condition.
9. All the spare of the R.O. plant will be repaired free of cost.
10. Service Engineer will visit the plant once in month failing which recovery will be made @Rs. 2000/- per visit will be received from bill.
11. If any additional / alteration in the installed inventory is found / made after award of work then contractor shall be bound to do the comprehensive maintenance & operation for the same in the same quoted rate.
12. Contractor would be bound to execute such additional items which can be termed as logical, essential and necessary (even though not listed in schedule of quantities) for the effective execution of the work in totality as per direction of Engineer-In-charge, rates for such items of works shall be rationally analyzed/ derived and would be binding on the contractor.

SUB-HEAD-V (Operation of Lift)

1.0 The work shall be carried out as per CPWD Electrical specifications Internal (Part-I), External (Part-II) & lift (Part-III) amended up to date and entire satisfaction of Engineer-in-charge.

2.0 Details of Equipment's/Inventories

(i) 13 Passenger OTIS make lift = 4 Nos.

3.0 The following activities are intended to be covered under this contract:

- i) Operation of lifts as specified in BOQ, or as directed by the Engineer-in-Charge or his authorized representatives.
- ii) Maintenance of log book for each lift.
- iii) Switching off the lights of break down lift from lift machine room and placement of OUT OF ORDER board / placed at the entrance of lift.
- iv) Lodging of break down complaint (telephonically) with the lift comprehensive maintenance agency and recording the complaint no. and time of complaint in the log book.
- v) Recording of time of repair of break down lift and getting the certificate from the Mechanic /Engineer of company that the lift is fit for operation.
- vi) Daily cleaning of lift cars, lift facia and machine rooms.
- vii) Upkeepment of locks and keys of lift machine rooms, keys of lift landing doors.
- viii) Restricting the transportation of inflammable materials like gas cylinders etc. in the lift.

(A) Performing the following daily checks on each lift :

- 1) Landing Locks (i) Movement of car with gate open.
(ii) Try to open the gate when car is not landing.
- 2) Car gate switch (i) Movement of car with gate open.

(B) Open the gate while car is moving.

- 1) Door operation safety (on automatic doors)
- 2) Functioning of emergency stop button, call bell, car lights, landing lights and landing call buttons.

4.0 Following staff shall be engaged by the contractor on all days of the week.

Skilled Electrical Staff Lift Operator – 02 Nos. (General Shift) on all working days excluding Sunday & Holidays

In no case the contractor shall reduce this staff strength, otherwise recovery on “pro-rata basis” shall be affected.

3.1 The contractor shall depute staff with minimum qualification and experience as detailed hereunder:

- **Skilled Electrical Staff (Lift Operator)**

(A) Lift Operator (E&M):

Lift Operator shall have to be ITI or equivalent with minimum 3 years working experience and must be conversant with the safety devices relating to lifts. The candidates will be subject to a trade test to judge their ability to:-

- (a) Drive the lift up and down the full course and stop at any required floor.
- (b) Operate the emergency switch.
- (c) Operate the alarm bell.
- (d) Operate the lift switches.

In case of any staff found absence from duty, the recovery will be made at the following rates from the contractor bill.

(a) Lift operator must be conversant with the safety devices relating to lifts. The candidates will be subject to a trade test to judge their ability to:-

(i) Should have worked as a lift operator for period of three year.

ii. In case of any staff found absence from duty, the recovery will be made at the following rates from the contractor bill.

i) Lift Operator - 2200 per day / shift.

Department reserve the right to reject / accept the staff without assigning any reason.

After receipt of confirmation of their suitability for the job, he shall deploy them on duty.

4.0 Duties of Lift Operator :-

a)He should be able to read technical instructions and record/ maintain log books.

b)He should be trained for proper operation of lift and about safety and technical aspects of lift and to rescue stranded person as per proper method of rescue.

c)Proper method of rescuing a stranded passenger :-

i) The passenger is able to communicate with the help of emergency bell/ intercom.

ii) The car light, fan, bell, intercom system should get benefit or emergency electric supply.

iii)The operator is to assure the passenger that he will be rescued shortly and request him to stay claim and not to force open the doors.

iv) Go to lift M/C room, switch off power supply, bring lift to nearest landing by manual operation, open lift/ landing door, Now passenger can leave the lift.

v)Examine the lift, if it is unsafe, then shut down lift service. Don't allow the lift to be used.

vi)Immediately inform JE/AE/Lift service to take necessary action to remove the deficiency of lift.

vii)Keep " lift out of order/ Don't enter lift" handy sign boards to keep in front of such lift.

d)During normal operation of lift, the operation is to ensure :-

i) Orderly exit / Entry of lift users.

ii) No overloading.

iii)Prevent improper goods transportation, which might damage the lift.

iv) Misuse of lift.

v) Passengers should not smoke inside.

e)**Summary :-** The basis duties of lift operator are to ensure. i) Daily safety checks of lift. ii) Cleanliness of lifts and machine room. iii)Prevent overloading/ Misuse/ abuse of lift. iv) Shutdown lift in case it becomes unsafe and takes immediate action to inform JE/AE/Lift Machine/ Lift service center and guard the lift till help arrives.

f) Daily safety check & check list for lifts.

Daily safety check :i) First clean lift car inside and M/c room. ii) Run the lift to start from ground floor to last landing and back to ground floor, stopping at each floor. iii) Check levelling at each landing. iv) Check door opening/ closing at each landing. v) Check working of all buttons, controls, indication of the lift car. vi) Check working of alarm switch. vii)Check working of emergency light and fan. viii)Check working of intercom system. ix) Notice any abnormality in running, jerk, improper landing etc.

Monthly Check list: (Open register for daily safety check of each lift to be counter signed by JE/AE once in a month) i) Lift car, M/c room cleaned – Ok. ii) All car buttons functional – Ok. iii) Emergency alarm working – Ok. iv) Emergency light, fan working – Ok v) Intercom working – Ok vi)Run the lift room ground floor to highest floor and back to stop at all landing – Ok vii) Leveling at each floor – Ok viii) Door opening / closing – Ok ix) No Jerk/ Abnormalities in running – Ok

(Note:- Failure to do above daily / monthly / quarterly / six monthly / Yearly checks shall attract a recovery as per decision of Engineer-In-charge & decision of Engineer-in-charge shall be final & binding to agency)

SUB-HEAD-VI (AMC of OTIS Lift)

1. **Comprehensive Maintenance of Lift** shall be carried out by the OEM of lift and routine maintenance and safety check as per OEM standard practice / schedule.
2. **Breakdown / Stoppage complaint of lift** shall be communicated to the OEM by the lift operator immediately latest by 30 minutes and shall be recorded in logbook/special register with intimation to JE(E) in-charge and same should be attended by the OEM within 8 hours, otherwise a recovery of Rs. 1500/- per lift per day shall be made beyond 8 hours.
3. The firm shall depute trained supervision staff for the maintenance and upkeepment of the lifts in the operating conditions.
4. The technician / lift mechanic of the firm shall visit atleast once a month and make entries in the logbook of the service and other works carried out by him. The lift mechanic of the company shall certify in the logbook that the lift “is fit for use” and that all the safety devices are working. He shall also mention his name with dates and time in the logbook.
5. Besides the periodical visit the complaint lodged over telephone shall be made by the officials of department viz Assistant Engineer (E), Junior Engineer (E), lift operator or by the client department and the same will be entered in the logbook and the said complaint must to be attended within 8 hours by the firm.
6. The department will make payments to the contractor on the rate approved in the agreement, if the efficiency of the lift is 90% or more. If the performance is less than 90% then proportionate payment shall be made. If the lift efficiency is less than 90% the payment shall be made as below method:

Let, Monthly payment due	Rs.100.00
Percentage of efficiency	85%
Proportionate payments	Rs.85.00

Relaxation is permissible to the extent and on the items indicated below.
7. The maintenance, routine as well as preventive shall be carried out as per manufactures standard practice.
8. The firm shall be responsible to carry out the repair/replacement of following parts, free of cost during maintenance contract:
 - a. All parts of main control panel i.e. relay, relay coils, moving contract/fixed contact, landing locks, rectifiers, transformer, indicating light, rewinding of motor, transformer and other items covered maintenance schedule.
 - b. Replacement/Repair of control board of lift, DC motor, AC motor, gear box, DC generator, safety devices of all lifts, indication lamps, guide rail, steel ropes, flywheel sheave.
9. **The existing parts required to be replaced shall be replaced with existing make of the part the rates agreed for comprehensive maintenance will be such that the dismantled material will not be returned to the department.**
10. Following works are excluded from the scope of this comprehensive contract. “Car Enclosure, Door Panels, Hung Ceiling, Car Gates, Light Diffusers, Light Bulbs, Fluorescent Tubes, Handrails, Starters, Chokes, Mirrors, Floor Coverings, Carpets, Other Architectural Features, Hoistway Enclosure, Hoistway Gates, Door Frames, Door Sills, Batteries, Security System, External Wiring to Elevator and Hoistway / Machine Room”. Imported components like ELD, Plasma Display & EVAIS etc.
11. In the event of mishap / accident, caused not due to the user / lift operator, then the firm shall stand responsible on any damage / injury to his staff and equipment’s.
12. **Necessity of valid labour license.** The contractor has to obtain valid labour license for execution of this work under contract labour (Regulation & Abolition) Act 1970 and Contract Labour (Regulation & Abolition)/ Central Rules 1971, from Regional Labour Commissioner (Central) and shall produce a copy of same, prior to start of work.
13. **Points Valid for availing relaxation as below:**

The Following relaxation in computing of efficiency will be given

Due to break down / failure	No. of days
Rewinding of DC Hoist Motor, AC motor, replacement of brush, bearings, repair of armature.	10 days
Replacement of carbon brush, replacement of rectifier, replacement / repair of thyristor panel	1 day
Repair of gear box	8 days
Replacement of sheave and steel rope	3 days
Replacement of steel rope, chain, tape of selector, governor	2 days
Replacement of brake shoe lining	1 day
Replacement of trailing cable	5 days
Rewinding, repair of brake motor, door drive, cam motor	1 day

SUB-HEAD-IX (Comprehensive Maintenance of D.G. Sets)

1. The work shall be carried out as per CPWD specification Part-VII–DG Set amended upto date and as per instruction In-charge and recommendation of OEM.
2. The agency will carry out periodical and preventive maintenance of DG Sets at site of work.
3. 2 Nos. ‘B’ checks maintenance shall be done by the contractor in one year for each DG Set.
4. The Agency will have to carry out preventive maintenance of alternator and AMF Panel Greasing of Alternator cleaning of AMF Panel and maintenance of Battery including checking terminals during the visit at site no cartage for taking out material/ spare parts to work shop will be paid.
5. The agency will attend all type of fault with in one hour. Diagnosis the fault and rectify the same to make the DG sets operational as soon as possible.
6. In case agency fails to discharge his obligations and fails to submit periodical reports a recovery of Rs. 1500/- per day per set report as the case may be shall be made from Contractor Bill.
7. A record will have to be work done, during preventive maintenance on call attending during the contract period, Register will be signed by the AE(E) / JE(E) concerned along with your firm representative.
8. The necessary consumable items like old dhoti, grease, thinner for cleaning, jelly for the battery and battery terminal will be arranged by the firm for which nothing extra will be paid.
9. The rates quoted shall be inclusive of all taxes and duties i/c GST, nothing extra shall be paid on this account.
10. Payment for AMC will be made quarterly.
11. The contractor has to engage his labour as per site conditions. The department shall not entertain anything extra for the idle labour whatsoever.
12. Contractor shall be responsible for conduct of staff/workers deployed at site of work.
13. No claim for wastage of labour due to non-issuance of entry token/entry passes shall be considered by the Department.
14. The work is to be carried out in building having very strict regulations. The persons engaged on work must have good character antecedents. The contractor should familiarize himself with the process of obtaining entry passes/entry tokens.
15. Dismantled material if any shall be returned to department.
16. The contractor shall furnish Name & Contact Number of the person, Who should be contacted during emergency.
17. Any damage done to the equipment, building during maintenance shall be responsibility of the contractor and thus contractor shall have to make good the same.
18. Only qualified and trained staff is to be deputed for repairs/checking/preventive maintenance of DG Sets.
19. The contract can be terminated at any point of time without assigning any reason and without any prior intimation given to firm.
20. The work shall be carried out to the entire satisfaction of engineer-in-charge.
21. No T & P will be provided by the Department.
22. Nothing extra shall be paid on account of cartage etc.
23. The material used at site shall be got approved by Engineer-in-charge before start of work.
24. Contractor should employ well trained technical staff for carry out the work.
25. Contractor is responsible for the safety of staff and installations during carrying out the work.
26. The contractor should give warranty for 12 Months for the parts replaced.
27. Complaints will be attended within 6 hours after making complaint through Phone/ Email/ Whatsapp failing which a recovery of Rs. 1000/- per day per Generator shall be made from the bill.
28. Monthly visit shall be carried out by service engineer or as and when required & the scope of work will include the following if contractor fails to carry out monthly visit, a recovery of Rs. 4000/- per month shall be made.
 - (i) Checking the engine for its smooth running and visual inspection of un-usual noise and colour of the smoke from the exhaust.

- (ii) Checking and adjusting Fan Belt and Water Pump belt tensions. Changing of both if required.
 - (iii) Cleaning of Air Filters to increase their life as well as proper inflow of Air. Also changing them, if required. (Compressed Air to be provided by CPWD for cleaning purpose).
 - (iv) Carrying out B & C check & valve tappet setting as and when required.
 - (v) End play checking of crankshaft, Accessory Drive and Turbo Charger whenever required.
 - (vi) Checking the alignment of Engine and Alternator whenever required.
 - (vii) Checking of proper functioning of various instruments of dashboard instrument panel.
 - (viii) Diagnosis of various faults and then rectification, limited to ones. However, if any parts required that will be supplied by CPWD.
 - (ix) Checking and fault finding in the Electrical Systems (AMF Panel) associated with the engine.
 - (x) General cleaning of alternator from inside with hand blower.
 - (xi) Checking carbon brushes if applicable for their proper length and spring tension (in case of conventional alternator.)
 - (xii) Cleaning battery terminals for sulphation and checking its state.
 - (xiii) Checking of wiring system for its loose and dry connections.
 - (xiv) Changing of rectifiers whenever required (in case of conventional alternator).
 - (xv) Checking rotating diode assembly in brushless alternator.
 - (xvi) Checking of mounting bolts.
 - (xvii) Diagnosis of various faults and their rectification at the site.
 - (xviii) Greasing of Alternator bearings as per manufacturer recommendation.
 - (xix) In case of parallel operation Alternator droop setting for proper load sharing.
29. In this comprehensive AMC contract also provide 6 major services for the 1 No. D.G. Set.
30. All the dismantled/credit material shall be the responsibility of agency which will taken out from the side.
31. This comprehensive maintenance does not includes the following jobs :-
- (i) Engine major / top overhauling.
 - (ii) Repair of alternator winding Dynamo, solenoid, electrical items in generator control panel replacement, repair of self starter.
 - (iii) Cleaning and repair of radiator, oil cooler, water pump, turbo charger. (iv) Calibration / testing and repair of injection pump system and injectors.
 - (vii) Repair or replacement of batteries.

SUB-HEAD-X (SPECIAL REPAIR OF EI WORKS)

1. The work shall be carried out in accordance with CPWD specification for electrical work part –I 2023 (Internal), and part –II External 2023, Part-IV (Sub-Station) 2013 (as amended up to date). All installation shall comply with the requirement of Indian Electricity Rules -1956 as amended up to date and as per instruction of Engineer-in-charge.
2. The contractor shall submit sample materials along with technical specifications/Test Reports (If any) to the department for getting approval, before procurement of materials. All the materials to be used on the work by the contractor shall be got approved from the Engineer-in-charge or his authorized representative before use on the work. The rejected materials shall have to be replaced by the contractor at his own cost and the same should be removed from the site immediately.
3. All T&P and special T&P shall be arranged by the contractor & nothing extra shall be paid on account of this.
4. Works with bad workmanship are liable to be rejected and the same shall be rectified by the contractor for which nothing extra shall be paid.
5. Works with bad workmanship are liable to be rejected and the same shall be rectified by the contractor for which nothing extra shall be paid.
6. The contractor is advised to visit the site before quoting this tender to apprise himself about the site environments and other conditions.
7. The contractor is bound to sign the site order book as and when required by the Engineer-in-charge and shall carry out the instructions recorded therein.
8. Any damage done to the existing building while executing the electric work should be made good to the satisfaction of the department within scope of the work for which nothing extra shall be paid. The chases, holes etc. cut in the walls and roofs should be filled within two days. All malba should be removed on the same day by using gunny bag/mats for collection of malba. All the above shall be done under the scope of work and nothing extra shall be paid on a/c of this. In case of failure to do so it will be got done by the Engineer-in-charge or his authorized representative at contractor's risk and cost.
9. All the hidden works shall be carried out in the presence of Engineer-in-charge or his authorized representative with giving sufficient prior information.
10. The contractor shall make his own arrangements for storing the materials and watch & ward at his own cost, even for the installation till the completion of the work and handing over of the building/quarters.
11. The contractor shall make his own arrangement for all general and special tools and plants required for the work at his own cost and nothing extra shall be paid on this account.
12. The earth connection to main switches/boards etc. shall be done with lugs/thimbles properly soldered or with crimping tool within the quoted rates and nothing extra shall be paid on this account.
13. Laying of the conduits routes, position of switches, fittings and cable routes etc. should be got approved by the Engineer-in charge or his authorized representative before execution of work. It will be in the interest of the contractor to mark the above layout at site and get it approved before actual execution of the work otherwise it will have to get it redone which no extra payment will be made.
14. Wireman executing electrical work should have valid electrical license as required under I.E. Act. The manpower to be deployed for special work should be other than staffs deputed for routine/running maintenance.

15. All inter-connections in the switch-boards shall be carried out with suitable cable/wire connectors with the sufficient current carrying capacity.
16. All the MCB,s etc. shall be of the same make as of the make of MCB DB/TP & DP sheet steel enclosure, irrespective of description of item.
17. All screws/nuts bolts should be galvanized/cadmium plated shall be use at site.
18. If any accident occurs during the execution of work, the firm/contractor will be responsible for all and no compensation will be paid by the Dept.
19. Workers engaged by the contractor for execution of work shall be liability of the contractor and they will not be considered for type of regular employment in the Department, in any case.
20. The contractor is liable to obey/ follow the guidelines and rules issued time to time by the Deptt. Regarding EPFO, ESIC, Registration and labour license.
21. The contractor shall cover all new junction boxes i/c round boxes with White Phenolic laminated sheet within the scope of work and nothing extra shall be paid on account of this. However if existing steel junction boxes to be covered with 3 mm thick laminated sheet, then this sheet shall be paid against respective item.
22. All loose wires connecting from ceiling rose to fittings/ fans/ exhaust fans shall be laid inside white colour PVC sleeves. Providing & fixing these PVC sleeves are within the scope of work and nothing extra shall be paid on account of this.
23. The firm shall submit the Manufacturer test certificate of the equipments at the time of supply of material before installation at site.
24. The contractor is required to submit documentary evidences such as delivery challan/test report of material/bill/invoice/ for purchase of material used in work from Authorized dealer/Manufacture of make of material mentioned in NIT if required by the department for genuine of material.
25. The agency shall give minimum one year Guarantee/ Warranty or Guarantee/ Warranty as per manufacturer's norms, which ever higher, to the equipments like Switch, Socket, MCBs, DBs, Ceiling Fan, Exhaust Fan etc., w.e.f. the date of actual completion of the work against unsatisfactory performance and/or break down for which the agency shall submit an undertaking to the Department just after completion of work. The equipments or components, or any part thereof, so found defective during guarantee/ warranty period shall be forthwith repaired or replaced free of cost, to the satisfaction of the Engineer-in Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done/ rectified by the Department at the risk and cost of the contractor and the amount shall be deducted from his security deposit/ any due from the Department. The decision of the Engineer-in- charge in this regard shall be final & binding on the contractor.

(SH-XIII: Supply of material for Day-to-Day maintenance)

1. The work shall be carried out strictly in accordance with CPWD specification for electrical works 2023 (Internal) and 2023 (External) and as amended up to date and in accordance with Indian Electricity Rules, 1956, India Electricity Act, 2003 as amended upto date and as per instructions of the Engineer-in-Charge.
2. All the material to be used on this work by the contractor shall be approved from the Engineer-in-Charge in advance before installation at the site.
3. The contractor or his engineer is bound to sign the site order book as and when required by the Engineer-in-Charge and to comply with the remarks therein.
4. The contractor shall make his own arrangement at his own cost for Electrical/ General tools and plants required for the work.
5. The contractor shall on demand by the Engineer-in-charge, furnish the proof to the satisfaction of Engineer-in-charge regarding purchase of all materials from the manufactures authorized outlets.
6. The make of the materials have been indicated in the list of acceptable makes. No other makes will be acceptable. The materials to be used in the work shall be got approved by the Engineer in Charge/his representative before its use at site. The E-in-C shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not acceptable.
7. Where switches/sockets/regulator/telephone/TV/internet outlets are to be provided, the same shall be of only one make.
8. The materials used in the work shall be of approved make as per List of Preferred Make of Materials.
9. All the LED Bulbs/ LED fittings shall be guaranteed for a period of 5 Years and the agency shall submit guarantee /warranty certificate issued by the competent authority of the manufacturer, specifically issued for this work/ agreement, before payment of final bill
10. The contractor shall arrange to submit LM -79 & LM -80 reports from LED manufacturer for each and every type of LED fittings.
11. The lamp color temperature shall be intimated by Engineer-in-charge/his representative at site.
12. The materials used in the work shall be of approved make as per NIT.
13. Defect Liability Period: All the installations shall be guaranteed for a period of 12 months or more as per OEM which ever is higher from the date of completion. Any defective materials and equipment shall be replaced free of cost, nothing extra will be paid on this account.
14. The supply of material mentioned in Sub-Head XIII has to be arranged and supplied at site by the agency in 50% quantity within 15 days of award of work and balance 50% quantity within next 15 days, failing which a recovery of Rs.10000/- per day subject to a maximum of Rs.2.0 Lakhs will be made from the agency bill.

Assistant Engineer (E)-P
DED-81, CPWD

Executive Engineer (E)
DED-81, CPWD

List of Preferred Make of Materials

Specification/brands names of materials (Refer materials, whichever are applicable for the scope of work) and finishes approved by the **Engineer-in-Charge** are listed below. However approved equivalent materials and finishes of any other specialized firms may be used, in case it is established that the brands specified below are not available in the market and subject to approval of the alternate brand by the **Engineer-in-Charge**, (See also conditions of contract)

S.No.	Materials/Equipments	Preferred Make
Internal Electrical Installation		
1	MCB, Isolator, Industrial Plug Socket, RCCB, RCBO's.	Schneider Electric ACTI-9/ Legrand(DX3)/ L&T(Exora)/Siemens(Betagard)/ABB(SB200M).
2	MCBDB & Loose Wire Box.	Legrand/L&T/Schneider/ABB(Elegance)/Siemens
3	Change Over Switch.	L&T/Havells/HPL/C&S/Legrand/ABB
4	Automatic Transfer switch(ATS)	Cummins/Asco/Russelectric/ABB/L&T/GE
5	FRLS PVC insulated copper conductor single core cable for wiring (ISI marked).	Finolex/RR Kabel/KEI/Polycab/Lapp/Havells/ Pi Square/ Rallison
6	Armoured/Unarmoured telephone cable and Co-axial cable	Delton/Finolex/RR Kable/Bonton/ Polycab/ Lapp/ Pi Square /Rallison
7	MS Conduit (ISI Marked) with Heavy Duty MS conduit pipe Accessories.	BEC/NIC/AKG/RMCON/Steel Kraits Note:- All Ms conduit pipe accessories will be same make as that of conduit pipe and will comply to IS/4768 part 2 2003
8	PVC conduit (ISI Marked) with heavy duty PVC conduit pipe accessories	AKG/Norpack/BEC/Precision/Finolex/Astral/Polycab
9	Modular switch, socket/Telephone socket/cable TV socket/Data outlet socket/fan Regulator/GI Boxes and cover plate, blanking plate, Modular MCB etc.	Legrand (Arteor)/Schneider Electric (Zencelo)/MK (Blenze plus)/Havells(Crabtree- Athena)/Honeywell (Citric)/ABB(TVISHA)
10	PVC Trunking	MK/Legrand/ Schneider/Hager
11	GI pipe	Tata/Jindal(Hissar)/Prakash Surya
12	Synthetic enamel paint	ICI Dulux/Asian/Nerolac/Berger
13	Terminal Blocks and Connectors	Elmex/Wago/Hensel/Connectwell/Essen/L&T
14	Phenolic Laminated Sheet/Bakelite Sheet	Hylam/Formica/Greenlam
15	Cat-6 Cable/Wire & Fiber Optic Cable	Amp/Avaya/Belden/Legrand/Delton/Molex/ Pi Square// Rallison
16	XLPE insulated PVC sheathed AL./Copper Conductor Armoured/ Unarmoured cable of 1.1 KV grade.	Finolex/ RR Kabel/Universal/ Polycab/ Nicco/ KEI/Havells/ Pi Square/ Rallison
17	GI/Copper Strip and Earthing material	Bharti/Indiana/Slotco
18	Chemical Earthing	JMV LPS Ltd./Pragati Electrocom/Ecosafe/Duval Messien(Terec)
19	Occupancy Sensor/Lighting Control System	Philips/Schneider/Legrand/Siemens
20	LED fittings i/c flood light	Philips/ Lighting Technology/Disano/Regent/Wipro/ Havells/Panasonic
21	Cable Trays Its Accessories	Bec /Rmcon / Indiana /Pilco/Mem
22	Timer Switch & 3 Pole Contractor	L&T/ ABB / Legrand /Siemens
23	Thermoplastic Polycarbonate Junction Box	Hensel /Rittal/ Siemens
24	UPVC Trunking and accessories	Legrand / Honeywell / OBO
25	Ceiling Fan/ Exhaust Fan/ Wall Fan/ Ventilation Fan	Usha/Crompton/Orient/Havells/Atomberg
26	Lead acid Battery	Exide/Amara Raja/ HBL/Pulse /Amco / Panasonic

27	LT panel/Outdoor Feeder Pillar	Tricolite Electrical Industries/Control & Switchgears Pvt. Ltd./Milestone/ R.P. Control /Adlec Power Pvt.Ltd./Advance Panels & Switchgear Pvt.Ltd./ Schneider/Neptune
Sub-Station and DG Set		
1	LT panel/Meter panel Board/Outdoor Feeder Pillar/APFC panel(less than 200KVAR)/Bus Duct	Tricolite Electrical Industries/Control & Switchgears Pvt. Ltd./Milestone/Adlec Power Pvt.Ltd./Advance Panels & Switchgear Pvt.Ltd./Schneider/Neptune
2	LT panel(TTA Type)	L & T (Model - TI)/Schneider (Model - Block Set)/ABB(Model - Ar Tu K)/Siemens(Model- Siepan 8PU)
3	Air insulated rising main	C&S/L&T/Schneider/Legrand/Godrej
4	Sandwich type bus trunking	C&S/L&T/Schneider/Legrand/ Godrej
5	Moulded Case Circuit Breaker (MCCB) Thermal Release/ Microprocessor based (Ics=Icu=100%)	Schneider Electric (NSx Series)/Siemens (VL Series)/L&T(Dsine)/Legrand(DPX3)/ABB(TMA)
6	Power/Aux. Contactor 3/4 pole	Schneider /L&T/BCH/Siemens/Legrand/ ABB/ C&S/Havells
7	Potential Transformers/Current Transformer	Automatic Electric/Gilbert & Maxwell/ L&T/Kappa
8	LED type, Indicating Lamps/Push Button.	Schneider/ABB/L&T/Siemens/Vaishno/C&S/ BCH/Rishabh
9	Overload relays with built in Single Phase Preventer	Schneider Electric/L&T/Siemens/ABB/C&S/BCH/Legrand
10	Conventional/Electronic Digital Meters(A/V/PF/Hz/KW/KWH)	Conzerv/L&T/Secure/AE/Siemens/Schneider
11	Timer	Siemens/L&T/Legrand/ABB/Schneider Electric/ BCH/Minilec
12	Fasteners/ GI clamp	Hilti/Fischer/Canon
13	D.W. Corrugated HDPE Pipe(ISI marked)	REX/Tirupati/CPE/Supreme/Jain Irrigation/ Duraline
14	Transformer(Oil/Dry type)	Kirloskar/ABB/Schneider/Siemens/Areva/ Voltamp/Crompton Greaves
15	HT Panel/Ring Main Unit	Siemens/ABB/L&T/Schneider/Crompton Greaves
16	HT Cable (ISI Marked).	CCI/Polycab /Universal/NICCO/KEI/ Finolex/Gloster/Havells
17	HT End Termination/ Cable jointing kit	Raychem/Denson/Cabseal/Safekit/3M
18	ACBs(with display)	Siemens (Sentron 3 WL)/L&T(U-Power-OMEGA)/ Schneider Electric (Masterpact NW6.0A)/Legrand(DMX-3MP4)/ABB(Emax2 & Formula)
19	Rubber Mat and Electrical Gloves	Raychem/Honeywell
20	Digital multifunction meter	Conzerv/Siemens/Schenider/Legrand/L&T
21	Fire Extinguisher (All types)	Minimax/New Age/Safex/Ever Safe/ Ceasefire/ Tyco/Life Guard
22	Capacitor & Reactors/APFC Relay	EPCOS/L&T/DUCATI/ABB/64iemens/Schneider/ Legrand/Neptune
23	APFC Panel(200 KVAR & Above) (Accessories make will be as per manufacture's standards)	L&T/Schneider/ABB/Siemens/Legrand/ Neptune
24	Cable Glands Double Compression with earthing links	Baliga Lighting/Comet/Cosmos/ Dowell's/ Gripwell/ Raychem

25	Bimetallic Cable Lug/Thimble	Comet /Dowell's/Hax Brass(Copper Alloy India)/Schneider
26	MS/GI cable tray & accessories	BEC/RMON/PILCO MEM
27	Programmable logic controller(PLC)	Siemens/L&T/ABB/Allen Bradley
28	Selector Switch & Toggle switch	Salzer (L&T)/Siemens/ Kaycee/Rishabh/ABB/ Legrand/Schneider/BCH
29	DC Power pack Unit	Statcon/Amara Raja/HBL/Thycon India/ Mahamaya
30	SMF Battery	Exide/Amara Raja/HBL/Amco/Panasonic/Okaya
31	IDMT Over current and Earth fault Relay	Areva/L&T/Siemens/Schneider/ABB
32	UPS(Online/Offline)	Numeric/Eaton/APC/Vertiv/Mitsubishi/ Emerson
33	Load bank Panel	Havells/Schneider/Legrand/L&T
Fire Fighting System		
1	MS/GI Pipe	Tata/Jindal (Hisar)/Prakash Surya
2	Forged Steel Fittings/Flanges	Johnson/ VS Forge/JK Forging/Trueforge/Indus/Jainsons
3	Forged steel fittings/flanges (for welding joints)	VS Forge/Kanwal Forge/Johnson/Trueforge
4	Fasteners	Hilti/Fischer/Canon
5	Pipe Hangers/Clamp/Supports	Hilti/Fischer/Euroclamp/GMGR
6	Gun Metal/Brass Valve(ISI marked)(Ball valve/Gate Valve/Globe valve/Non Return valve/Foot valve)	Sant/ Leader/Advance/ Kirloskar /L&T/Audco
7	C.I Butterfly/Sluice Valve/NRV/Foot Valve(ISI marked)	Advance/Kirloskar/Sant/Leader/L&T/ Audco
8	Y type Strainer	Emerald/Rapid Cool/Sant/Leader
9	Fire/Sprinkler Pump/Terrace Fire Pump	Kirloskar/KSB/Grundfos/Wilo Mather & Platt / Armstrong / Xylem ITT
10	Electrical Motor	ABB / Siemens / Kirloskar / Grundfos / NGEF / Crompton Greaves/Havells
11	Diesel Engine for Fire Pump	Kirloskar/Caterpillar/Cummins/ Volvo Penta/ Perkins
12	Couplings (Tyre- Type)	Lovejoy/ Fenner/Dunlop
13	Anti Vibration Mounting	Kanwal Industries Corporation / Dunlop/ Resistoflex
14	Pressure switch(ISI marked)	System Sensor / Indfoss/ Danfoss/ Switzer/ Honey Well/Potter
15	Pressure Gauge(ISI marked)	H Guru / Fiebig / Dwyer/ HD/
16	Fire Hydrant valves/Fire RRL Hose pipe/ Fire Hose Reel/Fire Man's Axe/Gun Metal or SS Branch pipe/FB inlet/Draw out connection/Hose Box/Hose reel Drum/ Nozzle/ Coupling	Minimax/ New Age / Ceasefire/ Padmini / Tyco/Superox/Life Guard
17	Water Flow Switch(FM/UL listed)	System Sensor / Switzer/ Rapid Control / Potter /Honey Well/Tyco
18	Coal Tar based polymeric anti-corrosion tape	Pypkote (IWL India Ltd.)/Makphalt/ Rustech

19	Level Controller & Indicator (Water)	Schneider / Danfoss/ Teknika/ Minilec
20	Fire Sealant	Fischer / 3M/ Hilti /Raven
21	Overload relays with inbuilt single phase preventer	Schneider/L&T/Siemens/ABB/C&S/BCH/ Legrand
22	Power/Aux. contractor $\frac{3}{4}$ pole	Schneider/L&T/BCH/Siemens/Legrand/ ABB/ C&S/ Havells
23	LED Type indicating lamps/Push button	Schneider/ABB/L&T/Siemens/Vaishno/ C&S
24	LT Jointing Kit	Raychem/Denson/Cab Seal/3M/Safekit
25	Lead acid Battery	Exide/Amara Raja/ HBL/Pulse /Amco / Panasonic
26	Battery Charger	Statcon/Amara Raja/HBL/Thycon India
27	Synthetic Enamel Paint	ICI Dulux/Asian/Nerolac
28	Air Release valve	Zoloto/Advance/Leader/Arco/Sant
29	Conventional/Electronic Digital Meters(A/V/PF/Hz/KW/KWH)	Conzerv/L&T/Secure/AE/Siemens/ Schneider
30	Solenoid Valve/Spray Nozzle	Parker/HD/Tyco/Emerson/Honey Well /Danfoss
31	Sprinkler Heads QB type (Side wall/ upright/ pendant)	HD/Tyco/Reliable/Wormald/Viking/Life Guard
32	Water Curtain Nozzle	Tyco/Viking/Newage/HD
33	Steel Flexible Extension	Newage/Tyco/Viking/Safex/Easyflex
34	Vibration Eliminator	Resistoflex/D wren/Kanwal
35	Welding Electrodes	Ador (Advani) /ESAB/L&T/Victor
36	Deluge Valve	Tyco/Viking/HD
37	Fire Buckets with Stand	Safex/Minimax/Lifeguard/Padmini/Omex/ Superex
38	Fire Suppression System / Gas Flooding System	Tyco / Newage / Minimax / Viking / Ceasefire
39	Fire Extinguisher (All types) & accessories	Minimax/New Age/Safex/Ever Safe/ Ceasefire/ Tyco/ Lifeguard
40	XLPE insulated PVC sheathed Al./Copper Conductor Armoured/ Unarmoured cable of 1.1 KV grade.	Finolex/ RR Kabel/Universal/ Polycab/ Nicco/ KEI/ Havells/
41	Cable Glands Double Compression with earthing links	Baliga Lighting /Comet /Cosmos /Dowell's /Gripwell/ Raychem
42	Bimetallic Cable Lug/Thimble	Comet /Dowell's/Hax Brass(Copper Alloy India)/ Schneider
43	Cable Joints	3M/Raychem/ Denson/ Vikchem
Fire Alarm System		
1	Intelligent Addressable Fire Alarm Panel /Detectors/Hooter/Manual Call Point/Talk back/Control Module/Monitor Module/ Control Relay module / Fault isolator / Repeater panel / Response indicator	Honey well / Bosch/Edward/Notifier/Siemens
2	Fire Survival Cable	Tyco/ Bonton / Lapp/Polycab/Finolex/RR Kabel/ Havells
3	PA Amplifier / Speaker / Microphone	Bosch / Philips / Bose / Honeywell
4	SMF Battery	Exide/Amara Raja/HBL/Amco / Panasonic

5	Any other material	To be approved by Engineer-in-charge
HVAC		
1	VRV A.C (Outdoor/Indoor/Remote Control/Y Joint)	Hitachi/ Mitsubishi Electric (heavy) / General/ Daikin
2	Split/Window AC/Cassette AC	Hitachi/ Mitsubishi Electric (heavy) / O-General/ Daikin/Toshiba
3	Copper Refrigerant Piping	Rajco / Mandev / Totaline/Kwality Tubes/Shree Shyam/ RR Shramik
4	Nitrile Rubber Insulation (For Duct / Drain Pipe / Refrigerant Pipe Insulation)	Armaflex/Aeroflex/K Flex/Eurobatex/Superlon
5	UPVC drain pipe	Supreme/Finolex/Astral/Ashirvad
6	Multicore Copper flexible Cable	Finolex/Polycab/RR Kabel/KEI/Havells
7	Two way pressure independent balancing & control valve	Siemens/Danfoss/Belimo
8	Adhesive for insulation	Pidilite/Superlon/Armacell
9	GI/GSS Sheet for ducting	Tata/SAIL/Jindal Hissar
10	Auto air vent	Rapid cool/Emerald/Cimberio
11	Air Handling Unit with coil	Zeco/Edgetech/Waves/Flaktwood/VTS/Systemair
12	Air Washer	Zeco/Edgetech/Waves/Flaktwood/ Humidin/Symphony
13	Axial flow/Centrifugal Fan	Kruger/Greenheck/Wolter/Nicotra/Systemair/ Comefri
14	Balancing Valve	Advance/L&T/Honeywell/Danfoss/Belimo
15	Dash Fasteners	Canon / Fischer /Hilti
16	Variable Pumping System	Grundfos/Armstrong/Xylem ITT/wilo/Kirloskar
17	Chilled/Hot water circulation and Condenser water pump	Grundfos/Armstrong/Xylem ITT/wilo/Kirloskar
18	Electric Motor	ABB / Siemens / Kirloskar / Grundfos / NGEF / Crompton Greaves/Havells
19	CPRX Compound/Tar Felt	Shalimar Tar Product/Asian/Pidilite
20	XLPE insulated PVC sheathed Al./Copper Conductor Armoured/ Unarmoured cable of 1.1 KV grade.	Finolex/ RR Kabel/Universal/ Polycab/ Nicco/KEI/Havells/ Rallison
21	Moulded Case Circuit Breaker (MCCB) Thermal Release/ Microprocessor based (Ics=Icu=100%)	Schneider Electric (NSx Series)/Siemens (VL Series)/L&T(Dsine)/Legrand(DPX3)/ABB(TMAX
22	Power/Aux. Contactor ¾ pole	Schneider /L&T/BCH/Siemens/Legrand/ ABB/C&S/Havells
23	Potential Transformers/Current Transformer	Automatic Electric/Gilbert & Maxwell/L&T/Kappa
24	LED type, Indicating Lamps/Push Button.	Schneider/ABB/L&T/Siemens/Vaishno/C&S
25	Overload relays with built in Single Phase Preventer	Schneider Electric/L&T/Siemens/ABB/ C&S/BCH/Legrand
26	Conventional/Electronic Digital Meters(A/V/PF/Hz/KW/KWH)	Conzerv/L&T/Secure/AE/Siemens/Schneider
27	Timer	Siemens/L&T/Legrand/ABB/Schneider Electric/BCH
28	ACBs(with display)	Siemens (Sentron 3 WL)/L&T(U-Power-OMEGA)/ ABB(Emax) PR122 / Schneider Electric (Masterpact NW6.0A)/Legrand(DMX-3MP4).
29	Rubber Mat and Electrical Gloves	Raychem/Honeywell
30	Digital multifunction meter	Conzerv/Siemens/Schenider/Legrand/L&T
31	Cable Glands Double Compression with earthing links	Baliga Lighting/ Comet/Cosmos/ Dowell's/Gripwell/ Raychem

32	Bimetallic Cable Lug/Thimble	Comet /Dowell's/Hax Brass(Copper Alloy India)/ Schneider
33	Programmable logic controller(PLC)	Siemens/L&T/ABB/Allen Bradley
34	Selector Switch & Toggle switch	Salzer (L&T)/Siemens/ Kaycee/ Rishabh/ ABB/ Legrand/ Schneider
35	Gun Metal/Brass Valve(ISI marked)(Ball valve/Gate Valve/Globe valve/Non Return valve/Foot valve)	Sant/ Leader/Advance /Kirloskar /L&T/Audco
36	C.I Butterfly/Sluice Valve/NRV/Foot Valve(ISI marked)	Advance/Kirloskar/Sant/Leader/ Audco
37	Y type Strainer	Emerald/Rapid Cool/Sant/Leader
38	MS/GI Pipe	Tata/Jindal (Hisar)/Prakash Surya
39	Forged Steel Fittings/Flanges	Johnson/ VS Forge/JK Forging/Trueforge/Indus/Jainsons
40	Forged steel fittings/flanges (for welding joints)	VS Forge/Kanwal Forge/Johnson/Trueforge
41	Fasteners	Hilti/Fischer/Canon
42	Pipe Hangers/Clamp/Supports	Hilti/Fischer/Euroclamp/GMGR
43	Synthetic Enamel Paint	ICI Dulux/Asian/Nerolac
44	Vibration Eliminator	Resistoflex/D wren/Kanwal
45	Duct damper/Grills/ Diffuser/VCD/Collar damper	Caryaire/Systemair/Dynacraft/Airflow/Ravistar
46	Factory fabricated duct & flanges	Rolastar/Zeco/Ductofab/Technofab/Waves Daikin/ Carrier/Johnson Control/ Flaktwood/ VTS/ Hitachi/ Mitsubishi
47	Fan coil unit with fan	
48	Filters(Pre/Hepa/BIBO)	Thermodyne/Spectrum/Camfil/American Air Filter
49	Fire damper actuator	Belimo/Siemens/Danfoss/Honeywell
50	Fire and Smoke dampers	Greenheck/Systemair/Airflow/Caryaire
51	Flexible duct connection	Airflow/Rolastar/UP Twiga/Caryaire/Atco
52	Flexible pipe connection	Resistoflex/Easyflex/Diamond/Dunlop
53	Hot water Generator/Humidifier	KEPL/Rapidcool/Emerald/Enmax
54	Inline fan	Kruger/Nicotra/Greenheck/Wolter/Airflow/ Systemair
55	Fiber glass Aluminium faced insulation	UP Twiga/ Owens Corning/ Kimmco
56	PUF insulation	Styrene Packaging & insulations/ Llyod insulation/ Supreme
57	XLPE insulation	Supreme/ Vidoflex/ Trocellen/ K-Flex
58	Expanded Polysterene insulation	Styrene Packing/ Beardsell / ARKC
59	Pre insulated duct	Zeco/ Kingspan/ UP Twiga
60	Pressure/ Temperature Gauge	H Guru/ Fiebig/ Warree/ HD
61	Propeller Fans	GE/ Usha/ Alstom/ Crompton/ Marathon
62	Thermostat/ Humidistat	Honeywell/Johnson/Siemens/Schneider
63	Strip Heater	Das Pass/ Escorts/ Wattco
64	V Belt	Dunlop/ Fenner/ Hilton
65	Variable Frequency Drive	Siemens/Danfoss/ABB/L&T/Allen Bradley
66	Pot Strainer	Emerald/VTM/Rapid Cool

67	Chilled /Hot water Cassette/Wall unit	Carrier/Trane/Daikin/Johnson Control
68	Motorized Butterfly Valve	Honeywell/Belimo/Danfoss/Siemens
70	Water Cooled Chiller	York-Johnson Control/ Dunhum Bush/ Daikin Mcquay/ Trane
71	Cooling Tower	Bell/ Paharpur/ Mihir/Flowtech
72	Ultra Violet germicidal irradiation System	Ruks/Trimed/Steril-Aire
73	Refrigerant Gas	R-22/32/134A/410A etc As Per Required Ac Units
	EPABX System	
1.	IP based EPABX System	Matrix/Coral / Ushitel
2.	IP based Phones	Surya/Coral / Ushitel
3.	SLT Port	Matrix/Coral / Ushitel
4.	Console Phone	Matrix/Coral / Ushitel
5.	Analogue Phones	Matrix/Binatone/Beetal
6.	Cable	Delton/Usha/Polycab
7.	Any other make	To be approved by Engineer-in-charge

Note:

1. Department reserves the right to reject any material used without Prior approval from Engineer-in-Charge. No payment shall be made for such rejected material.
2. Public Procurement (Preference to Make in India) order 2017 issued by competent authority of Government of India shall be implemented during selection of materials and execution of work accordingly. Any Manufacturer if not included in the approved make list, may be considered by the Engineer-in-Charge provided such manufacturers comply the above policy along with their product meeting the specifications and other details of the required item.
3. Material specified in the list of Preferred makes shall be got approved by Engineer-in-charge before use in the work. Decision of Engineer-in-charge shall be final in this regard.
4. Material not specified in the list of preferred makes shall be approved by Engineer-in-charge before use in the work. Decision of Engineer-in-charge shall be final in this respect.

Assistant Engineer (E)-P
DED-81, CPWD

Executive Engineer (E)
DED-81, CPWD

Schedule of Work

Name of work:-MOEI & Fans, Power plug, Street/Compound Light and RMO Sub-station Equipment's, stand by 320 KVA DG Set, Pump Set for water supply, Wet riser i/c Sprinkler System, Automatic Fire Alarm, PA & Sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Street/ Compound Light, Sub station, Fire Fighting and Fire Alarm system, Operation & Comprehensive maintenance of DG Set, Lifts & RO Plants)

Item No.	Description	Qty		Rate	Per Unit	Amount
	Sub Head-I (Maintenance of EI & Fans, Compound Light & street lights)					
1	Providing services for day to day maintenance of electrical installation such as light/fan/Exhaust/call bell Point/ Light/Power Plug, Circuit/ Submain wiring, MCCB,cabling, switch & socket,DB's main panel i/c compound light fittings & pole box and attending day to day electrical complaint in building with deplyoment of minimum staff in two shift in all working days expcept Sundays & Holidays etc. as required.					
	(a)Wireman - 2 Nos. (6:00 AM TO 2:00 PM & 2:00 PM TO 10:00 PM)	1	Job			
	(b)Khallasi- 1 No. (in General shift)	12	Months	102235.00	month	1226820.00
	Total Sub Head -I					1226820.00
	Sub Head-II (Sub Station & 320 KVA DG set with AMF panel)					
1	Providing service for running operation and day to day routine maintenance of 11 KV/0.433V sub-station with all incoming and outgoing electrical transformers ,HT< equipment, power factor panel i/c 1x320 KVA DG set with AMF panel, routine checkup of control panel, fuel tank, water level indicator etc round the clock by experence holder staff as per terms & conditions of the agreement.etc as rqd.					
	a) Wireman - 3 Nos. round the clock on all days i/c Saturday, Sunday &Holidays					
	b) Khallasi - 1 No. Single shift on all working days excluding Sundays & Holidays.	12	months	156769.00	Months	1881228.00
	Total Sub Head -II					1881228.00
	Sub Head-III (Fire Fighting , Fire alarm and PA System, RO plant & pump)					
1	Providing Services for running operation & routine maintenance of fire fighting , fire alarm & PA system i/c routine check up for fire system and water supply pumps & operation of 2x500 LPH RO plant (Eureka Forbes Aquaguard) with all associated fire accesssoires of system round the clock by experence holder staff as per terms & conditions of the agreement etc as reqd.					
	(a) Operator - 3 Nos. round the clock (One in each shift) on all days i/c Saturday, Sunday & Holidays	12	months	126990.00	Months	1523880.00

	Total -SH-III					1523880.00
	SH-IV (AMC of Eureka Forbes Aquaguard RO Plant 500 LPH)					
1	Comprehensive maintenance of eureka forbes (Aquaguard) Make RO Plant of capacity 2 x500 LPH including Bi Monthly mandatory services which includes cleaning of all filters, repairing / replacement of all electrical, electronics spares parts and consumables as and when required and compulsory providing and replacement of following detailed below as required alongwith attending the complaints withing 24 hrs as per direction of Engineer-in- charge.					
	(a) Supplying & replacement of micron fillters, carbon filter- every month					
	(b) Supplying & replacement of membrane - once in a year					
	(c) Supplying & mixing off antiscalant dosing chemical as and when required.	12	Months	31180.00	months	374160.00
2	Repairing, servicing, testing and commissioning of 500 LPH Reverse Osmosis (RO) Water Treatment Plant by dismantling defective parts and providing, replacing and fixing activated carbon media, multigrade filter media, MGF vessel (10"×54"), ACF vessel (10"×54"), multiport valves, strainers, raw water pump and other allied accessories, including interconnection, testing, trial run and commissioning, complete in all respects as required.					
	Carbon	25	Kg	261.00	Kg	6525.00
	Multigrade Media	150	Kg	110.00	Kg	16500.00
	MGF Vessel (10X54)	1	Nos.	32297.00	Each	32297.00
	ACF Vessel (10X54)	1	Nos.	32297.00	Each	32297.00
	Multiport valve	2	Nos.	9804.00	Each	19608.00
	Strainer	2	Set	4383.00	Set	8766.00
	Raw Water Pump (HP)	1	Nos.	7497.00	Each	7497.00
	Total -SH-IV					497650.00
	SH-V (Running Operation of lift)					
1	Providing services for operation of 4 Nos. 13 passenger OTIS make lifts (G+6) at CCRAS near Reception and auditorium side at CCRAS Building, Janakpuri, New Delhi with the deployment of following staff on all working days except Sundays and Holidays and as per terms & condition of agreement .					
	a) Lift Operator - 2 Nos. (General shift)on all working days excluding Sundays & Holidays)	12	months	72457.00	Months	869484.00
	Total -SH-V					869484.00
	SH-VI(AMC of Lift)					

1	Comprehensive maintenance of 4 nos OTIS make 13 passenger (13x 68=884 kgs) capacity speed 1 mtr/sec passenger lift 1 mtr. ACVVV , Drive 7 stops,/7 landing (G-6), about 28 mtr, Travels simplex selective automatic/ attendant operation in CCRAS building near Auditorium & reception at Janakpuri, New Delhi (4 Nos lift for 12 months)	12	months	78387.00	months	940644
	Total SH-VI					940644.00
	SH-VII (Door system of Lift)					
1	Providing and replacing complete automatic lift door operator mechanism comprising door drive motor, control PCB, SMPS, power & signal wiring harness, connectors, brackets etc., for smooth operation of lift doors, complete in all respects as required at site.					
	(a) P-INT GREEN CONNECTOR (1 no.)					
	(b) PCB,LEDO 3WOPERC (1 no.)					
	(c) POWER SUPPLY BLOCK LEDO (1 no.)					
	(d) SMPS MTG BRACKET (1 nos)					
	(e) SPIRAL WRAP FOR MOTOR CABLE (1 no)					
	(f) GLIDE DOOR OPR MOTOR LH (1 no.)					
	(g) POWER HARNESS JN BOX-SMPS-LEDO (1 no.)					
	(h) 48V DC POWER HARNESS-SMPS TO LD (1 no.)					
	(i) SIGNAL HARNESS LEDO-COP (1 no.)	3	job	96172	p/Job	288516.00
	Total SH-VII					288516.00
	SH-VIII (LIFT INTERCOM SYSTEM)					
1	Supplying, fixing, testing and commissioning of EPABX system having built-in motherboard, CPU card and battery back up card configured upto 2 Trunk 2 Digital and 8 analog Extension having all standard features of IP/SIP EPABX System complete as reqd. (without card)	1	Nos	53295	Each	53295
2	Supplying, fixing, testing and commissioning of Expansion card having 2 CO Ports, 2 DKP Ports, 4 SLT Ports suitable for item no. 1 etc. as reqd.	1	Nos	15504	Each	15504
3	Supplying, fixing, testing and commissioning of Expansion card having 8 SLT Ports suitable for item no. 1 etc. as reqd.	1	Nos	16957	Each	16957
4	Supplying fixing, testing and commissioning of Master Console phone with trunk display status line busy status & incoming & outgoing call facility etc. as reqd.	2	Nos	17926	Each	35852
5	Supplying & fixing following Pair Krone Box with locking arrangement on surface of wall with rawl plug and screw having inbuilt same no.of pair krone module i/c pairing of each cable, washing with petrol/ thinner, feruling, punching, testing etc. complete as reqd.					

	(a) 50 Pairs	1	Nos	5329	Each	5329
	(b) 10 Pairs	4	Nos	2471	Each	9884
6	Supply, Installation, Testing & Commissioning of Analogue phones having standard features like 16 digit LCD display, 2 way speaker, caller ID and number storage facility, etc., complete as required. (Matrix/Binatone/ Beetal)	4	Nos	1502	Each	6008
7	Supplying and drawing following pair 0.5 mm dia FRLS/HFFR PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
	(a) 2 Pair	200	Mtrs.	39	Mtrs.	7800
	(b) 4 Pair	100	Mtrs	53	Mtrs.	5300
8	Supplying, fixing, testing and commissioning of Hot line lift car set hands-free operation with a high-gain amplifier enclosed in MS/Steel box powder coated & locking arrangement. The sets are to be connected with existing EPABX i/c testing of intercom lines of each lift & machine room etc. complete as required.	4	Nos	9205	Each	36820
	Total SH-VIII					192749.00
	SH-IX (Comprehensive maintenance of 1x320 KVA Cummins make DG set with AMF panel)					
1	(a) Annual Comprehensive maintenance of 1 x320 KVA DG sets with AMF panel of Cummins make with all associate accessories etc. as reqd. (ESN: 25337296, Model- NTA-855G2)	12	Job	7331.00	Per Job/Per month	87972
	(b) Carrying out B-check of 320 KVA DG sets of Cummins make diesel engine i/c providing of following spare as reqd.					
1	Indicator, Restriction(3872813)	2	Nos	947.00	Each	1894.00
2	KIT, super BYP filter elem(3879488)	2	Nos	2506.00	Each	5012.00
3	Rectifier service KIT - HC 4/5(RSK5001)	1	Nos	25200.00	Each	25200.00
4	Fuel Sure sulphur kit - set of 2(AX1017285)	1	Nos	3196.00	Each	3196.00
5	Kit, Fuel filter and ring(3238493)	2	Nos	1708.00	Each	3416.00
6	Element , LUB oil filter(3238204)	2	Nos	1213.00	Each	2426.00
7	Seal , O ring(3010937)	2	Nos	40.00	Each	80.00
8	Inhibitor, Corposion 5 Liter(3816986)	1	Nos	3033.00	Each	3033.00
9	Kit, Air cleaner element(3238358)	2	Nos	16149.00	Each	32298.00
10	Foil sealed test strips CC2602B(3403800)	2	Nos	499.00	Each	998.00
11	Inhibitor, Corrosion(4926654)	10	Nos	5870.00	Each	58700.00
12	VCL Premium blue 7800 plus 1/20 Ltr(505441)	4	Nos	14656.00	Each	58624.00
	Total -SH-IX					282849.00
	SH-X (EI Work)					

1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable etc. as required.					
	(a)Group C	10	Pts.	2101	Pts.	21010
2	Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor single core cable as earth wire in existing surface/recessed steel/PVC conduit including dismantling as required.					
	(a)Group C	30	Point	1064	Point	31920
3	Supplying and drawing following sizes of FRLS/HFFR PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.					
	(a) 3 x 1.5 sq. mm	100	Mtrs.	104	Mtrs.	10400
	(b) 3 x 4 sq. mm	150	Mtrs.	222	Mtrs.	33300
	(d) 6 x1.5 sq. mm	20	Mtrs.	195	Mtrs.	3900
	(e) 6 x4 sq. mm	50	Mtrs.	424	Mtrs.	21200
4	Supplying and fixing following size/ modules, GI box alongwithmodular base & cover plate for modular switches in recess etc.as required.					
	(a)1 or 2 Module (75mmX75mm)	5	nos	354	Each	1770
	(b)3 Module (100mmX75mm)	10	nos	384	Each	3840
	(d)6 Module (200mmX75mm)	20	nos	462	Each	9240
	(e)8 Module (125mmX125mm)	20	nos	517	Each	10340
	(f)12 Module (200mmX150mm)	5	nos	614	Each	3070
5	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
	(a)5/6 A switch	50	nos	121	Each	6050
	(b)15/16 A switch	20	nos	176	Each	3520
	(c)3 pin 5/6 A socket outlet	20	nos	136	Each	2720
	(d) 6 pin 15/16 A socket outlet	20	nos	219	Each	4380
6	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	5	nos	1258	Each	6290

7	Supplying, Laying and fixing of one number PVC insulated and PVC sheathed / XLPE armoured aluminium conductor power cable of 1.1 kV grade of following size on wall surface as required.(clamped with 1 mm thick saddle)					
	(a) 2x16 sqmm (clamped with 1 mm thick saddle)	60	Mtrs.	345	Mtrs.	20700
8	Supplying and Laying of one number PVC insulated and PVC sheathed / XLPE armoured aluminium conductor power cable of 1.1 kV grade of following size in the existng RCC/HUME/METAL pipe etc as reqd.					
	(a)2x16 sqmm(Al. armoured cable)	120	Mtrs.	328	Mtrs.	39360
	(b)3.5 X35 sqmm(Al. armoured cable)	90	Mtrs.	632	Mtrs.	56880
9	Supplying & Fixing of weather, dust and vermin proof SMC box of size 250mm x200 mm x105 mm(inside dimension), with locking arrangement infront i/c Al bus bar on porcelain base , 1 No 6 Amp SP MCB , rubber / PVC gasketed cover, to be fixed on the existing pole with suitable size MS flat clamps, nuts, bolts etc. as reqd.	6	Nos.	2250	Nos.	13500
10	Providing and making steel pole collar with cement concrete (1 cement : 3 coarse sand : 6 stone aggregate 20mm) of specified size and shape including form work, plastering if required, curing etc as required. (volume of pole/ pipe not to be deducted	2	cub mtr	8834	cub mtr	17668
11	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
	(a)2 X 16 sq. mm (22mm)	10	Nos.	311	Nos.	3110
	(b)3½ X 35 sq. mm (28mm)	4	Nos.	419	Nos.	1676
12	Supplying and laying three core PVC insulated and PVC sheathed industrial copper cable for submersible pump motor , voltage laying capacity 1100 V i/c connection , testing etc as reqd.					
	(a)3 x4 sqmm	40	Mtrs.	277	Mtrs.	11080
13	Supplying and fixing Following size PVC Trunking (battern) with locking arrangement along with all ancillaries and accessories like coupler, jointer etc. as required.					
	(a)60mm x 40mm	40	Mtrs.	495	Mtrs.	19800
	(b)100mm x 60mm	40	Mtrs.	723	Mtrs.	28920

14	Supplying of LED Recessed/ surface Down lighter (Round/ square/ Rectangular) SMD type of following body material with PMMA and prismatic diffuser and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -50C to 400C, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P. F.≥0.95, IP20, CRI >80, UGR (Unified Glare Rating) < 19, Flicker free (flicker should be below 5%), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K /4000°K / 5700°K / 6500°K (As per ANSI Bin), SDCM (Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be confirming to relevant BIS standards. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing Complete in all respect as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 and <120 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C) Powder coated die cast /Extruded aluminium Body including trim					
(a)	18 watt	50	nos	612	Each	30600

15	Supplying of Panel light 2x2 ft., of following body material and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, freq 50/60 hz, Operating temp range -15 deg to 40 deg centigrade, internal surge protection of 2.5 KV with Short & Open circuit protection, THD < 10% , P. F.≥0.95, IP20, CRI >80, UGR (Unified Glare Rating) < 19, Flicker free, (flicker should be below 5 %), life time (LED,Driver & electrical circuitary), of minimum 50000 Burning Hours with, 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K / 4000°K / 5700°K /6000°K / 6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard and trade mark certificate (T.C.). Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 <120 lm/Watt output . LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). CRCA Sheet Body (Thickness > 0.50 mm)					
	(a)36 watt	20	nos	2082	Each	41640

16	Supplying of LED surface mounted Batten light of following body material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency >85% ,Operating voltage AC 140-270 Volt, freq 50/60 hz, Operating temp range -15 deg to 40 deg centigrade, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P. F.≥0.95, IP20, CRI >80, Flicker free, (flicker should be below 5 %), life time (LED,Driver & electrical circuitary), of minimum 50000 Burning Hours with , 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K /6000°K/6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard and trade mark certificate (T.C.). Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 <120 lm/Watt output . LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement.(Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).CRCA Sheet Body (Thickness > 0.50 mm)					
(a)	18-22 watt	100	nos	344	Each	34400

17	Supplying of Street light LED fixture powder coated pressure die cast aluminium body with driver as per the requirement with Driver efficiency >85%, Input voltage: 140-270 Volt AC, freq 50/60 hz, Operating temp range -15 deg to 50 deg centigrade, internal surge protection of 5 KV L,N,E as per IEC 61000-4-5, Driver efficiency >85%,THD < 10% as per IEC 61000-3-2 , P. F.≥0.95, IP-66,IK-10, CRI >80, under voltage and over voltage protection, EMI-EMC As per CISPR -15, lenses for beam angle as per IESNA type I/II/III as per the width of the road and the project requirement., suitable to fit in up to 65mm dia pipe, life time (LED,Driver & electrical circuitary) of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM- 21-11 report, CCT 3000°K / 4000°K / 5700°K /6000°K/6500°K (As per ANSI Bin),SDCM(Standard Deviation Color Matching) <5, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard complete in all respect with Minimum 5 year OEM warranty. System lumen efficacy ≥105 <120 lm/Watt output . LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in- Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).					
(a)	45 Watt	10	nos	1025	each	10250
(b)	72 Watt	10	nos	1537	each	15370

18	Supplying of Flood Light, powder coated pressure die cast aluminium body with built in or separate driver as per the requirement with Driver efficiency >85%, Input voltage: Input voltage: 140-270 Volt AC, freq 50/60 hz, Operating temp range -15 deg to 50 deg centigrade, internal surge protection of 5 KV L,N,E as per IEC 61000-4-5, Driver efficiency >85%,THD < 10% as per IEC 61000-3-2 , P. F.≥0.95, IP-66,IK-10, CRI >80 , under voltage and over voltage protection,EMI-EMC as per CISPR-15, lenses for beam angle 30 deg-120deg as per the application and the project requirementdeg, suitable tilt able fitting, life time (LED,Driver & electrical circuitary) of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report ,CCT 3000°K / 4000°K / 5700°K /6000°K/6500°K (As per ANSI Bin) , SDCM(Standard Deviation Color Matching) <5, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard complete in all respect as required with Minimum 5 year OEM warranty. System lumen efficacy ≥120 and <135 lm/Watt output . LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).					
	(a)150 watt	5	nos	2960	each	14800
19	Supply of Ceiling Fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal(Aluminum alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al bodyPower Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Ceiling Fan compliant to IS 374:2019 fan Supply, earthing etc. complete as req.					
	(a) 1200mm, service value ≥ 6.0 CM/Min/Watt, air delivery 210 CM/Min (Minimum)	25	nos	2248	each	56200
	(b) 1400mm, service value ≥ 6.0 CM/Min/Watt, air delivery 245 CM/Min(Minimum)	10	nos	2287	each	22870
	Total SH-X					611774.00
8	SH-XI (Refilling & Supplying of Fire					

	Extinguishers)					
1	Taking out of following type of Fire Extinguishers/ cylinders from site CCRAS from the existing stands/hooks & Refilling the same from the authorised refilling station & Cleaning/Servicing/Painting with approved colour and checking/cleaning of discharge Pipe/Hose horn with rubber hose, Pressure Gauge & Hydraulic Pressure testing refixing the same place with too & from the CCRAS i/c fixing of service slip etc complete as required.					
	(a)CO2 type Fire extinguishers capacity of 4.5 Kg.	30	Nos	998.00	Each	29940
	(b)CO2 type Fire extinguishers capacity of 6.5 Kg	30	Nos	1331.00	Each	39930
	(c)Water Mist Trolley type Fire extinguishers capacity of 50 Kg.	2	Nos	12952.00	Each	25904
	(d)DCP (ABC type) Fire extinguishers capacity of 6 Kg.	15	Nos	1331.00	Each	19965
	(e)Mechanical Foam type Fire extinguishers capacity of 9 Ltrs.	2	Nos	887.00	Each	1774
2	SITC of CO2 portable type Fire Extinguisher ISI marked conforming to IS : 15683. Capacity 4.5 kg complete with delivery hose horn, wheel type release valve, locking arrangment , operation manual and bracket, operating Temperature:-30°C to + 60°C.	10	Nos.	9269.00	Each	92690
3	SITC of ABC power portable type 6 Kg Fire Extinguisher duly ISI marked conforming to IS: 15683:2018, with IS 4308, ISI marked ABC powder MAP-90 complete with squeeze grup release valve, discharge pipe, locking arrangement, pressure gauge, operation manual etc as complete.	10	Nos.	5327.00	Each	53270
	Total SH-XI					263473.00
	SH-XII(SUB-STATION)					
1	Servicing , Overhauling and Repairing of the existing 11KV, 630/800Amp, 50Hz, 3phase, horizontal draw out and horizontal isolation type vacuum circuit breaker (VCB) alongwith panel board,including removing the VCB from HT panel board, dismantling /opening the required parts for decarbonising, removing the dust with blower/ vaccume cleaner from the panel, servicing, checking, cleaning, testing & rectification of defects, setting right of fixed contacts, moving contacts, tripping and closing mechanism, oiling, greasing, assembling etc. complete as reqd including servicing & repairing of rack in & rack out mechanism, complete mechanical and electrical testing of VCB i/c calibration of IDMT/Numeric relays etc along with necessary testing commissioning etc complete as required to the entire satisfaction of Engineer In charge .	3	Nos.	12000	Each	36000.00

2	Providing and replacement of following defective parts of existing 630/800/1000/1250/1600/2000/2500Amp, 415 volt 3phase, 50Hz, horizontal draw out type ACB i/c dismantling the old worn out /defective part from the ACB testing, commissioning etc along with credit of the dismantled part complete as reqd.to the entire satisfaction of Engineer Incharge .					
(a)	Vacuum Interrupter	2	Nos.	30000	Each	60000.00
(b)	Jaw type contact	2	Nos.	30000	Each	60000.00
(c)	MC 61relay	2	Nos.	10000	Each	20000.00
(d)	Moveing contact	2	Nos.	22000	Each	44000.00
(e)	TULIP contact	2	Nos.	10000	Each	20000.00
(f)	100 Watt 230 Volt space heater with thermostete and temprature sensor	2	Nos.	12000	Each	24000.00
3	Servicing , Overhauling and Repairing of the existing 630/800/1000/1250/1600/2000/2500Amp, 415 Volt 50Hz, 3phase, Electrically/Mechanically draw out air circuit breaker (ACB),including removing the ACB from LT panel board, dismantling /opening the required parts for decarbonising, removing the dust with blower/ vaccume cleaner from the panel, servicing, checking, cleaning, testing & rectification of defects, setting right of fixed contacts, moving contacts, tripping and closing mechanism, oiling, greasing, assembling etc. complete as reqd ACB complete mechanical and electrical testing of ACB i/c calibration of IDMT/Numeric relays (if provided) etc alongwith necessary testing commissioning etc complete as required to the entire satisfaction of Engineer In charge .	3	Nos.	6000	Each	18000.00
4	Providing and replacement of following defective parts of existing 11KV, 630/800Amp, 3phase, 50Hz, horizontal draw out and horizontal isolation type vacuum circuit breaker (VCB) i/c dismantling the old worn out /defective part from the VCB testing, commissioning etc along with credit of the dismantled part complete as reqd.to the entire satisfaction of Engineer In charge .					
	(a) Under Voltage Trip Device with Assembly.	2	Nos.	22000	Each	44000
	(b) Charging Motor	2	Nos.	27000	Each	54000
	(c)LED indicating lamps	2	Nos.	150	Each	300
	(d) Moving contact	2	Nos.	5000	Each	10000
	(e)Fixed contact	2	Nos.	5000	Each	10000
5	Calibration of the complete set of 2 No. over load & one each fault IDMT relay, master relay, Trip circuite supervision relay, cleaning. Checking of wiring system calibration with secondary injection test kit, setting of tripping plugs according to the load complete with testing and commissioning as reqd.	4	job	3599	p/Job	14396.00

6	Complete servicing of P.T. assembling of 11 KV H.T. Panel cleaning all contacts, checking and tighten control wiring, checking P.T. fuse, dehydration of oil, i/c replacement of miner parts ie suitable size copper wire, thimble, PVC sleeve nut bolt, washer etc wherever, complete testing etc as reqd.	2	job	7198	p/Job	14396.00
7	Supplying & Fixing the power pack unit of 24 Volt, DC for tripping shunt trip coil of VCB according IDMT relays of 11KV HT panel i/c control wiring with copper wire, copper thimble & assembling the existing power pack unit etc complete as reqd.	3	Nos	24917	Each	74751.00
8	Supplying and replacement of space heater in HT Panel supply voltage 220 Volt AC, 50 Hz i/c desmentalling, defective heater, testing etc as required. .	3	Nos	2076	Each	6228.00
9	Servicing, Checking and complete testing of the 11/0.4 KV Cast Resin Dry type Transformer having rating from 630 KVA to 2500 KVA i/e performing following test such as Voltage ratio test, Megger test, High potential test, MBD test, etc as required and removing the dust with blower/vacuum cleaner & dusting from the transformer checking, cleaning & decarbonizing the contacts of transformer & limbs with CTC/CRC & tightening of connection & joints of bushing, connections, all nut bolt after removing taping, tightening of cable end terminations etc. complete as required as per direction of Engineer-in-charge.	2	Job	15000	Each	30000
10	Servicing, Checking and complete testing of the 11/0.4 KV ONAN type Transformer having rating from 630 KVA to 2500 KVA i/c performing following test such as Voltage ratio test, Megger test, High potential test, MBD test, etc as required and removing the dust with blower/vacuum cleaner & dusting from the transformer checking, cleaning & decarbonizing the contacts of transformer & limbs with CTC/CRC & tightening of connection & joints of bushing, connections, all nut bolt after removing taping, tightening of cable end terminations etc. complete as required as per direction of Engineer-in-charge.	1	Job	15000	Each	15000

11	Servicing, checking & cleaning of 11 KV HT panel board by opening the HT panel & CT's chamber, removing the dust with blower/vacuum cleaner & dusting from the panel checking, cleaning & decarbonizing the HT panel, fixed contacts of swithgear & CT's with CTC/CRC. & tightening of contacts & joints of bus bars, CT connections, PT connections after removing HT taping & compound, tightening of cable end terminations, replacement of burnt/heated thimbles, nut bolts, HT taping & monoplast compound etc. wherever reqd testing etc complete as reqd. (3 Nos,)	2	job	5815	p/Job	11630.00
12	Servicing, checking & cleaning of LT panel board/ changover Panel by opening the cover, removing the dust with blower/vacuum cleaner & dusting from the panel checking, cleaning & decarbonizing the LT panel, fixed contacts of swithgear & CT's with CTC/CRC & tightening of contacts & joints of bus bars, CT connections, all other connections after removing, tightening of cable end terminations, replacement of burnt /heated thimbles, nut bolts etc. wherever reqd testing etc complete as reqd. 2 Nose Panel board.	2	job	8306	p/Job	16612.00
13	Suply & Replacement of LED type indication light in the existing LT/HT panel etc. as required.	28	Nos	150	Each	4200.00
14	Servicing and repairing of 225 KVAR APFC (capacitor) Panel, replacement of bourn control wiring, cupper legs, PVC sleeve, cupper wire, 3 phase 415 Volt AC, 50 Hz LT panel complete, cleaning & testing of wiring system, replacement of minor parts such as nuts bolt & washer, testing and commissioning etc as reqd.	2	job	18660	p/Job	37320
15	Supply and Replacement of defective itemes in HT/ LT panel board.					
	(a)Volt / Amp. Meter size 96x96 SQ MM digital type	4	nos	941	Each	3764.00
	(b)Volt / Amp. Meter size 144x144 SQ MM digital type	4	nos	2049	Each	8196.00
	(c)APFC relay, 415 Volt, 12 stage, make L&T/ CG	1	nos	27132	Each	27132.00
	Total SH-XII					663925.00
	SH-XIII (Supply of Materials for Day-to-Day Maintenance) To be fixed & dismantled by existing workers as mentioned in items no. 1 SH-1.					
1	Stepped type electronic fan regulator (2 module)	50	Nos	282	Each	14100
2	5/6 amps switch (modular one way), ISI marked	100	Nos	44	Each	4400
3	15/16 A switch (modular one way), ISI marked	80	Nos	95	Each	7600
4	3 pin 5/6 A socket outlet (modular), ISI marked	60	Nos	81	Each	4860
5	6 pin 15/16 A socket outlet (modular), ISI marked	80	Nos	135	Each	10800

6	3 pole MCCB 125 A, 16 KA, Ics=100% Icu and Operational Voltage 690V, with thermomagnetic release	3	Nos	4360	Each	13080
7	3 pole MCCB 200 A, 25 KA, Ics=100% Icu and Operational Voltage 690V, with thermomagnetic release	2	Nos	10315	Each	20630
8	3 pole MCCB 250A, 25 KA, Ics=100% Icu and Operational Voltage 690, Vwith thermomagnetic release	2	Nos	12199	Each	24398
9	3 pole MCCB 630A, 50 KA, Ics=100% Icu and Operational Voltage 690V, with thermomagnetic release	1	Nos	26456	Each	26456
10	SP 5/6 A one way switch, piano type ISI marked	50	Nos	13	Each	650
11	3 pin 5/6 A socket, piano type ISI marked	20	Nos	29	Each	580
12	Ceiling rose, 3 pin,5 A ISI marked	50	Nos	26	Each	1300
13	Single pole MCB DB (5 A to 32 A rating) curve, 10 KA, breaking capacity	60	Nos.	173	Each	10380
14	40 Amps DP MCB"C" curve, 10 KA, breaking capacity	10	Nos	346	Each	3460
15	63 amps., 2 pole isolator	10	Nos	436	Each	4360
16	Exhaust fan heavy duty metal body (300 mm),100% copper motor suitable on 230 V single phase AC supply.	10	Nos	3250	Each	32500
17	Wall fan-400 mm sweep single phase air delivery between (65-75)CMM speed 1400 RPM. With 3 speed.	25	Nos	2738	Each	68450
18	Capacitor-2.5mfd	150	Nos	57	Each	8550
	Total -SH-XIII					256554.00
	SH-XIV (Credit for following dismantle materials i/c dismantling)					
1	Stepped type electronic fan regulator (2 module)	50	Nos	2	Each	100
2	5/6 amps switch (modular one way)	100	Nos	1	Each	100
3	15/16 A switch (modular one way)	80	Nos	1	Each	80
4	3 pin 5/6 A socket outlet(modular)	60	Nos	3	Each	180
5	6 pin 15/16 A socket outlet(modular)	80	Nos	3	Each	240
6	3 pole MCCB 125 A, 16 KA,	5	Nos	300	Each	1500
7	3 pole MCCB 200 A, 25 KA	3	Nos	700	Each	2100
8	3 pole MCCB 250A, 25 KA	3	Nos	900	Each	2700
9	3 pole MCCB 630A, 50 KA	1	Nos	2000	Each	2000
10	SP 5/6 A one way switch, piano type ISI marked, ISI marked	50	Nos	1	Each	50
11	3 pin 5/6 A socket, piano type ISI marked, ISI marked	20	Nos	2	Each	40
13	Single pole MCB DB(5 A to 32 A rating)	60	Nos.	3	Each	180

14	40 Amps DP MCB"C"	10	Nos	5	Each	50
15	63 amps., 2 pole isolator	10	Nos	5	Each	50
16	Exhaust fan heavy duty (300 mm)	10	Nos	300	Each	3000
17	Wall fan-400 mm	25	Nos	300	Each	7500
	Total -SH-XIV				(-)	19870.00
	Grand Total (SH-I,II,III,IV,V,VI,VII,VIII,IX,X,XI,XII,XIII,XIV)					9479676.00
	Say Rs.					9479676.00

Note: - The rate of any dismantles item shall be effective in the bills of contractor at the rate quoted by the contractor or rate mentioned in the NIT, whichever is higher. For example, if the rate of dismantle material is 100 and contractor quotes 10 % below, then his rate for the quoted item shall be 100/- each. if the contractor quotes 10 % above, then his rate for the said item shall be Rs. (Minus) 110/- each.

Assistant Engineer (E)-P
DED-81, CPWD

Executive Engineer (E)
DED-81, CPWD

FINANCIAL BID
(Performa for Quoting the Rates)

CENTRAL PUBLIC WORKS DEPARTMENT					
NIT No: 62/EE(E)/DED-81/2026-27					
NAME OF WORK :-MOEI, & Fans, Power plug & street/Compound Light and RMO sub-station Equipments stand by 320 KVA D.G. set, Pump set for water supply, Wetriser i/c Sprinkler System, Automatic Fire Alarm, PA & sound System in CCRAS Building at Janakpuri, New Delhi. (SH:- Maintenance & Operation of EI & Fans, Compound Light & street lights, Operation of 2x500 LPH RO plant, AMC of RO plant, Sub station, Fire Fighting and fire alarm system ,Lifts, operation & Comprehensive maintenance of 1x320 KVA cummins make DG set)					
SCHEDULE OF QUANTITY					
S. No.	Name of Components	Estimated Cost	Percentage above or below the Estimated Cost	%age in Figures	Total Cost
1.	Electrical works	Rs. 94,79,676/-			

Contractor