



REF. NO.: 50412/CCEESTS/BLR/E&M/2026-27

16 May 2026

NOTICE INVITING e-TENDER/ TENDER ENQUIRY

**OPERATION AND MAINTENANCE SERVICES FOR ELECTRICAL INSTALLATIONS
INTERNAL / EXTERNAL ELECTRIFICATIONS, DG SETS, AREA LIGHTING, FIRE
FIGHTING SYSTEM, FIRE ALARM SYSTEM, WATER SUPPLY, CRANES AND AIR
CONDITIONING PLANTS INCLUDING CLEAN ROOM FACILITY (CLASS/10000/1000)
AT MTRDC, BANGALORE**

Dear Sir(s),

1. On behalf of President of India, e-Tenders are invited for the subject work as per the scope of work and terms & conditions given in the tender enquiry. e-tenders are to be submitted online on the Central Public Procurement Portal web site <https://eprocure.gov.in> as per the dates mentioned in the tender enquiry. The Scope of Work & Estimated Cost of Tender is attached at **Appendix 'A' & 'E'**.

a)	Name of Work	Operation and Maintenance Services for Electrical Installations Internal / External Electrifications, DG Sets, Area Lighting, Fire Fighting System, Fire Alarm System, Water Supply, Canes and Air Conditioning Plants Including Clean Room Facility (Class/ 10000/1000) at MTRDC, Bangalore
b)	Tender Enquiry No.	CCEESTS/ENQ/BLR/E&M/30/2026-27 Dated 16 May 2026
c)	i) Estimated Cost of Wages	₹50,51,193.00 (Rupees Fifty Lakh Fifty One Thousand One Hundred and Ninety Three Only) (Agency to quote the Overhead & Profit % over this amount) For details refer Appendix – 'G' of tender enquiry)
	ii) Estimated cost put to Tender / NIT Value (incl. CP & all Taxes)	₹75,00,820.00 (Rupees Seventy-Five Lakh Eight Hundred Twenty Only) For details refer Appendix-'E' of tender enquiry
d)	Type of contract / work order	Open Tender Enquiry (OTE) amongst the enlisted agencies/ Percentage Rate Tender
e)	Cost of Tender Documents	-NIL-
f)	Amount of earnest money	Rs. 1,50,017.00 (i.e., @ 2% of the estimated value of NIT in the form of DD/Bank Guarantee / Bankers Cheque / Insurance Safety Bond Bond/FDR / TDR etc. From the Scheduled bank in favour of "Chief Construction Engineer, CCE (R&D) Estates South, Hyderabad" payable at Hyderabad Copy to be uploaded online in Cover No. 1 and original to be forwarded offline to this office before the due date i.e. before the opening of Technical Bid / Cover No. 1

		otherwise the tender will be treated as non Bonafide and will not be opened. The Earnest Money shall not earn any interest. Note: A part of earnest money is acceptable in the form of bank guarantee, Insurance Surety Bond. In such cases 50% of earnest money or Rs. 20 Lakhs whichever is less, will have to be deposited in the form prescribed above and balance can be accepted in the form of Bank Guarantee issued by a scheduled bank.
<u>CRITICAL DATES</u>		
g)	Publishing date and time of tender documents	16 May 2026 at 1800 hrs
	Starting date & time of downloading of tender documents	16 May 2026 at 1800 hrs
	Starting date and time of bid submission	16 May 2026 at 1800 hrs
	Closing date and time of bid submission	05 Jun 2026 at 1400 hrs
	Closing date of submission of hard Copies of Cover-1 (Technical bid including all eligibility criteria documents)	05 Jun 2026 at 1500 hrs
h)	Date and time of opening of technical bid (Cover-1)	08 Jun 2026 at 1400 hrs In case the bidder has any queries regarding his eligibility or otherwise, the same should be got clarified before opening of technical bid.
i)	Date and time of opening of price bid (Cover-2)	Will be made available online to the eligible bidders after completion of evaluation of Technical Bid.
j)	Validity of Tender/ Bids	120 Days from last date of submission of tender.
k)	Accepting Authority	CCE (R&D) Estates South, Hyderabad
l)	Next Higher Engineer Authority	DCW&E HQ, New Delhi
m)	Duration	12 (Twelve) Months
n)	Procedure for submitting Tender	<ol style="list-style-type: none"> 1. The bidder will upload the tender in two covers in ONLINE mode. <ol style="list-style-type: none"> a) <u>Cover-1</u> – Technical bid consisting of Eligibility criteria documents as per Table-A (as applicable) b) <u>Cover-2</u> – Financial bid/ Price bid. 2. On the due date & time of bid opening of the Cover-1, Technical Bid i.e., 'Eligibility Criteria documents only will be opened and processed. <p>Notes:-</p> <ol style="list-style-type: none"> i) Technical Bid documents of COVER-1 to be submitted in HARD COPY in office of

		<p>Accepting Authority before the prescribed due date and time. i.e., 05 JUN 2026 at 1500 hrs</p> <p>ii) No documents pertaining to Cover-2 (Price Bid) shall be submitted in hard copy. Bids with hard copy of price bid will be rejected.</p>
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2. **Eligibility Criteria:** All agencies enlisted with in Composite Category of **CC-III to Class I Super category are eligible without any PQ criteria and** Agencies enlisted under **BIM-I, BIM-II & BIM-III** Categories are eligible for participation in the tender with the PQ criteria. **Refer Table 'A' for details of documents to be submitted for eligibility criteria.**

(A) PQ Criteria for all agencies enlisted in BIM-I, BIM-II & BIM-III Categories :-

(a) **Qualifying Work:** The bidder should have successfully completed similar works **during last Seven (7) years ending** last day of month previous to the one in which applications are invited.

- (i) Three similar completed works each costing not less than the amount equal to 40% of estimated cost, i.e., **Rs. 30.00 Lakhs** or above of the estimated cost of **Rs. 75.01 Lakhs**.

OR

- (ii) Two similar completed works each costing not less than the amount equal to 50% of estimated cost, i.e., **Rs. 37.51 Lakhs** or above of the estimated cost of **Rs. 75.01 Lakhs**.

OR

- (iii) One similar completed works costing not less than the amount equal to 80% of estimated cost, i.e., **Rs. 60.01 Lakhs** or above of the estimated cost of **Rs. 75.01 Lakhs**.

AND

- (iv) **For meeting eligibility criteria, it is mandatory that at least 01 similar work of value not less than 40% of the estimated cost, i.e., Rs. 30.00 Lakhs or above of the estimated cost of Rs. 75.01 Lakhs should have been successfully completed with some Central Government Department / State Government Department / Central Autonomous Body / State Autonomous Body / Central Public Sector Undertaking / State Public Sector Undertaking / City Development Authority / Municipal Corporation of City formed under any Act by Central / State Government and published in Central / State Gazette, which can either be a part of or other than the work being submitted for Para 2 (a), sub-parts (i), (ii) and (iii).**

(b) **Definition of Similar works for Operation & Maintenance of E/M Services :**
 - Definition of similar work is Operation and Maintenance of E/M Works Services for a period of **12 months** by providing skilled/ unskilled manpower having good experience in E/M Works Services i.e Annual maintenance Contract (AMC), Comprehensive Annual maintenance contract (CAMC), Supply installations, Testing & Commis-

sioning (SITC), Repair, Overhauling, Operation & maintenance of Electrical & Mechanical installations like DG Sets, HVAC Plants, fire fighting & fire alarm systems, electrical sub-stations, external electrification, area lighting etc. For the purpose of eligibility criteria, the work done and gross payments received for the original period of the Job Work Order / Contract shall **ONLY** be considered (Generally **12 months**). Accordingly, extension period, if any, beyond the original PDC of the Job Work Order / Contract and gross amount of the payments received towards the extended period of JWO / CA will not be considered.

(c) Copies of the work order / contract of works meeting eligibility criteria as above (**Refer Annexure – IV**) with Copies of completion and performance certificate (**Refer Annexure – V**) as per paras above shall be submitted or else the tender will be rejected. The completion certificate / performance certificate shall invariably contain the duration of the work including extended period, if any, and value of work done (only original work order period will be considered).

(d) Value of executed similar work(s) (for the original job work order / CA period) shall be brought to current costing level by enhancing the actual value of the work at simple rate of 7% per annum, calculated from the date of completion to previous day of last date of submission of bid, which will be applicable for both Eligibility Criteria and Technical Bid Evaluation. Further, in case of Composite / Facility Management Services Contracts, the value of work done against the similar works **only** will be considered.

(e) The works completed with poor performance, with levy of compensation for delay in completion shall not be qualified in the Eligibility Criteria.

(f) **Bids submitted by agencies not fulfilling the above PQ Criteria shall not be considered eligible and shall be rejected. Also, ongoing work value beyond the original PDC of the Job Work Order / CA in any establishment will not be considered for eligibility and only the work done and gross payments received for the original period of ongoing works shall be considered. NO representation in this regard will be entertained**

(B) Bidding Capacity all agencies enlisted as per para 2 (i) above: -

Bidding Capacity (applicable to enlisted bidder in DCW&E) The bidder should possess the bidding capacity as calculated by the specified formula.

Available bid capacity = (A x N x 2) – B, where

A = Maximum value of Civil Works (including Civil Maintenance and Estate Management & Maintenance works) as relevant to works being executed in any one year during the last Seven years (updated at the current price level), taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the work in question.

B = Value (updated at the current price level) of the existing commitments and ongoing works to be completed in the next 'N' years.

Note: -

- i) The bidding capacity of the bidder obtained from above formula should be equal to or more than the estimated cost of the work put to tender.
- ii) In case the tenderer is lowest, the tendered amount will be considered as his workload for the purpose of calculating the bidding capacity in subsequent tenders issued by CCE(R&D) / EMUs. The subsequent tenders will be considered if he meets the bidding capacity criteria.
- iii) The bidder shall submit the Bidding Capacity as per the formula above along with supporting documents i.e., copies of LOI / Work Order for all work specified as per formula for bidding capacity.
- iv) All bidders must follow the terms and conditions of the ORDER No. P-45021/2/2017-PP (BE-II) dated: 16 Sep 2020, issued by Ministry of Commerce and Industry, Department for Promotion of Industry and Internal trade for apply of bid. The bidder shall also submit the certificate as per the Clause No. 9 of the referred order (as applicable).

The Bidder shall submit the calculation of bidding capacity and also submit the value of existing commitments and ongoing works to be completed during the period of completion of this work duly certified by the Chartered Account (Form-A).

(Scanned Copy of Documents from original shall be uploaded online and original to be submitted offline before due date of opening of Cover – I (Technical Bid).

Note : - Un-enlisted bidders will not be considered. Uploading of bid doesn't constitute any guarantee for the opening of the Technical / Financial Bid. The opening of bids will be decided by the competent authority based on the fulfilling of eligibility criteria. Accepting officer is the sole authority for the purpose of this tender.

(C) **Tenderers are advised to note the following :-** Tenderers having following valid documents will be technically qualified and considered for opening of their price bid. Technically qualified parties have no right to claim for award of the work. Department reserves the right to cancel or award the work to any party/tenderers.

- (a) Hard copies of the requisite documents shall be forwarded for Technical evaluation of the bids **within the time as specified in Tender Enquiry** as per Table – A .
- (b) In any case, hard copy of **price bids** shall not be submitted, or else, tender bid will be liable for rejection.
- (c) EMD as applicable shall be deposited in original copy.
- (d) Undertaking for Acceptance of Terms and Conditions (Annexure – I to NIT),
- (e) Copies of Enlistment letters with DCW&E under 'Rules for Enlistment of Contractors for Estate Management & Maintenance (DRDO); Estate Management Enlistment Rules-2024, in the appropriate category & class
- (f) Bidding Capacity to be submitted as per Form-'A' duly vetted by CA.

(Table – ‘A’)
LIST OF ELIGIBILITY DOCUMENTS TO SUBMITTED

Sl. No	Description of Documents	Bidders as per		Enclosures
		Para2 (a)	Para2(b)	
1.	Copies of Enlistment letter with DCW&E, New Delhi, in required category & class	√	√	Copies of Enlistment Letter
2.	Undertaking for Accepting terms & conditions of the Tender Enquiry	√	√	Annexure-I
3.	Original demand draft towards earnest money.	√	√	Demand Draft / Bank Guarantee / Bankers Cheque / Insurance Surety Bond / FDR / TDR etc.,
4.	Bidding Capacity to be submitted as per Form ‘A’ duly vetted by Chartered Account.	√	√	Form ‘A’
5.	Copy of JWO/CA of similar works completed and required to meet eligibility criteria	X	√	Annexure-IV
6.	Performance certificate of similar works required to meet eligibility criteria	X	√	Annexure-V

3. **Earnest Money Deposit (EMD):**

(a) 02 %(Two) of the estimated value of Tender specified shall be submitted as EMD in the form of DD/Bank Guarantee / Bankers Cheque /Insurance Surety Bond/ FDR? TDR from the Schedule / Nationalized bank in favour of “**Accepting authority as defined and payable at his office location i.e. CCE (R&D) Estates South, Hyderabad.** Copy to be uploaded online in Cover No.1 and original to be forwarded of-line to this office before the due date i.e., before the opening of Eligibility Criteria & Technical Evaluation Bid (Cover No. 1) otherwise the tender will be treated as non - bonafide and will not be opened. A part of earnest money is acceptable in the form of bank guarantee also. In such cases 50% of earnest money or Rs. 20.00 lakhs whichever is less, will have to be deposited in the shape of DD / BC / FDR and balance can be accepted in form of bank guarantee issued by a scheduled bank.

(b) **Forfeiture of Earnest Money:** - If any Bidder withdraws his Tender before the expiry of the validity period of tender, or before the issue of letter of acceptance, whichever is earlier, or makes any modification in the terms and conditions of the Tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the Earnest Money absolutely. If contractor fails to furnish the prescribed Security Deposit within the prescribed period, the earnest money is absolutely forfeited to the President automatically without any notice. In case of forfeiture of Earnest Money as pre-

scribed above, the Bidder shall not be allowed to participate in the e-tendering process of the work. **Tender not accompanied with required Earnest Money shall be liable to rejection.**

(c) The Bidder, who does not meet the eligibility criteria, and / or does not qualify in the technical bid, there EMD will be returned after completion of the tender process.

4. **Value of Tender:** The NIT value is the estimated cost put to tender (ECPT) which includes the wages, statutory payments, GST, other taxes (if any), TPMs, PPEs, Uniforms, Annual Maintenance Charges (O&M of E/M services), Stores, Periodical maintenance of DG Sets, AC's etc., Diesel with handling charges and Contractor Profits & Overheads (CP&OH). On this value, the EMDs, security deposits etc., shall be calculated. In percentage based BOQ, the cost of BOQ shall exclude the cost of Uniforms & Accessories, Annual Maintenance Charges, Store/Consumables and GST.

5. **Value of Contract:** The value of work order shall include the quoted price of tender plus stores, value of Diesel / FOL and any other amount excluded from the BOQ but have been included in the tender enquiry as a part of the estimated cost put to tender (ECPT) / NIT value as above. This has been done to avoid issuance of various amendments during the currency of contracts due to changes in Minimum Fair Wages (MFW) rates. However, the payments during the currency of contracts shall be made only on actuals as per prevailing MFW and the total payment shall be limited to the value of work order / CA, and amendments, if any. Monthly bills shall be prepared on the basis of prevailing MFWs and other items included in the BOQ. No amendment for the work order shall be issued for change in the rate of MFW, taxes and other statutory payments, if the updated amount remains within the value of the work order. An amendment to the contract shall be issued by the competent authority only in the case when the total amount of bills exceeds the existing work order value. In case of any changes in MFW and other statutory payments, a general information shall be circulated by competent authority for remaining period of works.

6. **GENERAL GUIDELINES:** All bids (Technical and Financial) should be uploaded in the Central Public Procurement Portal (e-procurement) (<https://eprocure.gov.in>) only. No manual price bids will be accepted. Corrigendum and addendum (if any) will be uploaded on Central Public Procurement Portal (e-procurement) (<https://eprocure.gov.in>). Bidders are advised to visit web page and update themselves. All revisions, clarifications, Corrigendum/addendum are the part of tender documents and bidders are supposed to upload the same, duly digitally signed by the legal owner of the Firm or the person authorised by him to do so as per the guidelines given in the tender enquiry.

7. **Bid Submission at Office of the Accepting Authority:**

(a) Any agency willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement portal <https://eprocure.gov.in>.

(b) Bidders to obtain **Digital Signature Certificate**, from the approved service provider of the **National Information's Centre (NIC)** on payment of requisite details and available at the Web Site.

(c) **Bids shall be submitted online on at CPP Portal web site: <https://eprocure.gov.in>** by the time specified in the tender enquiry. Prospective Contractors are advised to start uploading process well in time and not leave it to the last minute as same may take time because of the data involved. If the date of opening of tenders happens to be a public holiday, then the tenders will be opened on next working day at the same time and place. **Manual bids shall not be accepted.** Bidder / Contractors are advised to follow the instructions provided in the “**Instructions to Bidder**” for the e-submission of the bids online through the Central Public Procurement Portal for e-Procurement at <https://eprocure.gov.in> before proceeding with the tender.

(d) **Bidders should quote as per the Price Bid format in excel sheet and in the allotted space only. In no case, price Bids shall be submitted in Hard Copy.**

(e) **Submission of Hard Copy Documents: -**

- (i) In order to consider e-bids for the subject work, Original EMD must be deposited to the office of CCE (R&D) Estates South, Hyderabad as part of cover I before last date of submission of tenders on CPP Portal, failing which the firm shall be rendered ineligible for the opening of financial bid and the bid considered to be invalid.
- (ii) Hard copies of technical bid documents to be submitted before last date of submission of tenders on CPP Portal.
- (iii) Undertaking (Annexure – I to NIT).
- (iv) Copies of Enlistment letters with DCW&E under Enlistment Estate Management and Maintenance (DRDO-2024), in appropriate category & class.
- (v) Bidding Capacity to be submitted as per Form ‘A’ duly vetted by CA.
- (vi) The hard copy of eligibility criteria for technical bid shall be submitted in one sealed envelope Cover – I. **Original EMD received after the prescribed time and date as set out in the Tender Notice or subsequent extensions, if any, notified by the office will not be accepted.** The envelope and the covering letter accompanying the tender document (including all the documents), duly signed on each page with seal by the authorized representative of the bidder, should be enclosed in a bigger envelope, which shall be superscribed with the name of subject work as mentioned, Tender ID No. & date and the last date of submission and should reach the following address on or before the expiry of the prescribed time limit:-

**CCE (R&D) Estates South, Hyderabad,
Chandrayangutta,
Kesavagiri Post,
Hyderabad – 500 005**

- (vii) **The office of Accepting Authority takes no responsibility for delay, loss or non-receipt of the bid / documents sent by post / courier. EMD sent through Fax or Email shall not be accepted.**

8. **Expenses for Tender Preparation:** For the preparation and submission of tender, bidder shall Not be entitled to any cost expenses or other claims whether the tender is accepted, or rejected or invitation to tender withdrawn or cancelled.

9. **Incomplete Tenders:** The scope of work, terms and conditions and other details have been specified in the tender documents. Bidder shall prepare and submit his tender keeping in mind the completeness of works indicated in the tender documents. Any tender Not quoting for the complete work as per tender documents or is otherwise incomplete or is Not in compliance with the tender documents shall be liable to rejection.

10. **Tenderer Not to Resile:**

(a) Bidder shall not resile from this technical, commercial and price offer. Should the bidder resile from his tender in any manner whatsoever the tender submitted by him shall be liable to rejection. Bidder shall be allowed to revise his offer only if specifically, so requested by the tender inviting authority.

(b) If any discrepancy is noticed between the Eligibility documents as uploaded at the time of submission of Bid and hard copies as submitted physically in the office of Tender Inviting Authority by due date and time, the evaluation will be done on the basis of uploaded documents only. However, if any requisite document is not found in hard copy, the same may be referred from the uploaded document in the Portal.

(c) Clarifications, if any required to be sought on the submitted documents may be obtained through email or through portal regarding eligibility of agencies.

(d) Bidder / Bidders should submit / upload in the Portal, the entire Tender Enquiry document, digitally signed along with all corrigendum / addendums, if any published later on, as it is downloaded from the Portal, as a token of acceptance, in the appropriate given cover only.

(e) Tender document in which the Tender is submitted by a Bidder shall become the property of the Employer and the Employer shall have no obligation to return the same to the Bidder.

11. **Details of Works and Site Inspection/ Clarifications:**

(a) Agencies are required to clearly understand the scope of work, location and details of manpower to be positioned and nature of duty, etc., before participating in the tender. Agencies are advised to inspect at their own option the site of work and acquaint themselves with the working conditions including constraints and collect all necessary information for carrying out the work. The work are to executed **at MTRDC, BANGALORE** and police verification has to be obtained for all persons deployed under the contract prior to physical deployment at the site.

(b) **Bidders are advised to visit the site and understand the site conditions and security restrictions and requirements for the manpower to be engaged for the work** and acquaint themselves with the working conditions including constraints, if any, and collect all necessary information for estimating the exact quantum/ nature of work involved for carrying out the work satisfactorily before quoting their rates. The bidders shall submit their intention in writing along with Nos of persons, their details

and proposed dates of visit (minimum two such dates to be given). It is intimated that organising such site visit by the bidders may take a few days for the department. The bidders may contact the tender issuing authority, whose contact details; e-mail, address and contact numbers are given below for any clarifications:

For Site Visit	Clarification regarding tender
Name: Dr. Rakesh Kumar Sahu, Scientist 'F' Estate Manager, EMU (R&D), Bangalore Phone Office: 080 - 25242063/25240213 Mobile - +91 7898514607 Email id – emurnd.blr-drdo@gov.in	Name: R. Dhinakar, Technical Officer "C" Phone - Office 040-24401032 Mobile - +91 9423582173 Email id: ccerndestts.hq-ts@nic.in

12. **Modification and Withdrawal of Bids.** A bidder may modify or withdraw his bid online till deadline prescribed for submission of bids. **Withdrawal of a bid after last date of submission and physical receipt of the EMD will call of forfeiture of the EMD as per respective clauses.**
13. **No request for transfer of any previous deposit of earnest money or security deposit or payment of any pending bill held by the Office of Chief Construction Engineer (R&D) Estates South, Hyderabad, in respect of any previous work will be entertained.**
14. Bidder shall not be permitted to withdraw his offer (L-1) or modify the terms and conditions thereof. In case the bidder fails to observe and comply with the stipulations made herein or backs out after quoting the rates, the aforesaid bank guarantee / demand draft will be forfeited and bidder may be declared as defaulter and liable for black listing / ban.
15. **Rejection of Bids: Canvassing by the Bidder in any form, unsolicited letter and post-Tender correction may invoke summary rejection with forfeiture of EMD. Conditional Tenders will be rejected.**
16. Bidders may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. EMD of such bidder shall be forfeited. The decision of **Chief Construction Engineer (R&D) Estates South, Hyderabad**, in this regard shall be final and binding.
17. All entries in the tender forms / annexures should be legible and filled clearly. If the space for furnishing information is insufficient, a separate sheet duly signed by the authorized signatory may be attached. Minor correction, if any, made in the form will be allowed only if the same is endorsed by the bidder with his signature.
18. No modification or substitution of the submitted bids shall be allowed. The Office of Accepting Authority reserves the right to retain bids once submitted. It is clarified that bids once submitted will not be returned to the bidder.
19. A bid (Price bid) submitted without the cost and incomplete or conditional bids shall also be not considered and will be out rightly rejected in the very first instance.

20. **If any bidder is found to have business or family relationship with any employee DCW&E (CCE's / EMUs included), his bid will be rejected. A declaration to this effect shall be provided by the bidder along with Prequalification Bid.**

21. The Bids shall be opened on the Central Procurement Portal (e-procurement) on the scheduled date and time as specified. No separate intimation shall be sent to bidders for the same.

22. **Validity of Offer:** The validity of the offer shall be **120 days** from the last date of submission of bid. If any bidder withdraws his tender within the validity period or makes any modifications in terms and conditions of the tender and / or rates after submission of tender does not start the work within stipulated period from the date of issue of letter of acceptance, then **Chief Construction Engineer (R&D) Estates South, Hyderabad**, shall without prejudice to any other right or remedy, be at liberty to forfeit the earnest money deposited (EMD) by the bidder. In case of forfeiture of EMD, the bidder shall be debarred from bidding in case of re-invitation of the tenders.

Note: The L-1 tenderer is bound to accept the tender and execute / perform the work as envisaged in the tender documents. In case of unwillingness to perform / execute the work or withdraws his L-1 offer due to any reason including incorrect / wrong quoting, the firm will be debarred/ban to participate in any future tender for a minimum duration of one year or period as decided by accepting authority.

23. **Period of Completion:** The entire work under this contract / Job Work Order is to be completed within **Twelve (12) Months** from the date of commencement as given in Contract Agreement / Job Work Order, which is further extendable for a desired period with mutual agreement between bidder and Accepting Authority as per existing terms and conditions.

24. **Amount to be quoted & acceptance of tender:**

(a) The bidder shall quote only contractor's profit and over heads (in percentage) over the **Minimum Wages (BOQ Item No.1)** of tender or in item rates form as mentioned in percentage **BOQ (Appx. G)** uploaded in excel format. Any other obligatory charges which are not considered in estimated cost of tender to be considered by bidder in the percentage quoted.

(b) **The bidder shall quote more than or equal to 5.00% (minimum) Percent charges over Minimum wages (BOQ Item No.1) of tender for service charges / contractor profits and overheads and any other charges for satisfactory execution of work as per the scope of work and term and conditions. If a bidder / firm quotes "Less than 5.00%" charges / consideration, the bid shall be treated as unresponsive and will not be considered for acceptance. (Approved Minimum Services Charges for the procurement of manpower outsourcing services as per Govt. of India, Ministry of Finance, and Office Memorandum No. F.6/1/2023-PPD dated 06 Jan 2023 and DCWE letter No. DCWE/14/K-32997/Operative Guidelines/2025-26 dated 21 May 2025). No representation in this regard will be entertained.**

(c) **The contractors shall deploy adequately trained personnel meeting minimum qualification criteria. Efforts should be made to train the existing staff to the fullest extent possible and retain them post-training. However, if any con-**

tractual staff are found to be unsuitable despite receiving appropriate training, they should be gradually phased out and replaced with newly recruited personnel who have undergone proper training prior to deployment. The payment for which has to be made by the contractor(s) out of service charges being paid to them towards contractor's profit & overheads and the department will not be responsible towards any such payments.

Note : - Please note that the minimum service charges @5% {para 24 (b)} over the Minimum Fair Wages approved by the competent authority includes payment to be made by the contractor towards (i) training of contractual staff as required/directed. (ii) Insurance Cover (Workmen I Employee Compensation Insurance Policy and Group Mediclaim Insurance) as enumerated below in para {30 (c), sub-parts A&B of Terms & conditions} for the contractual employees not covered under ESI (wages more than Rs.21,000/- per month).

(d) In the Bill of Quantities (BOQ), while quoting, the bidders shall select the 'Excess (+)' balloon and after entering their quoted percentage value ensure that the value in the "Total Amount" column is increased from the estimated value of the tender. Entry up to ONLY two decimal points in the quoted percentage is desirable & restricted as the lower percentage value is automatically rounded off to two decimal points in display by the system while preparation of CST. In case of any discrepancy between the displayed values of "Quoted Percentage" and "Quoted Rate" in the CST prepared by the system, the value of quoted percentage, as displayed in the excel sheet uploaded by the bidders will be treated as final and binding.

(e) Any variation in the minimum wages notified by Chief Labour Commissioner (C), Government of India, Ministry of Labour & Employment New Delhi will be implemented and shall be claimed by addition/ deduction as part of same monthly bill itself along with GST as applicable. Any change in GST and other obligatory charges from the estimated value, will be paid/ deducted accordingly. However, no reimbursement will be admissible for Professional Tax.

(f) In case, the quoted amount of two or more tenderers are 5.00% then L1 will be decided by draw lots by a nominated Board of Officers formed by **CCE (R&D) Estates South, Hyderabad**. The tenderers or their authorised representatives to attend the opening. The date and time of which will be communicated through e-mail.

(g) In case, the quoted amount of two or more tenderers are more than 5.00% and also the lowest, then L1 decided after obtaining revised offer in sealed covers from such tenderers by the Board of Officers. The revised offer shall not be more than the original quoted more than the original quoted amount. Further, the revised offer any tenderer should not be less than 5.00% as per **Para 24 (b)** above, in such case the quoted of tenderer will become null and void and will be rejected.

(h) If in the above case, it is found by the board of officers that the amount as per the revised officer is again equal, then the lowest tender will be decided by draw of lots by the same board of officers. The tenderer or their authorised representatives may attend the opening, the date and time of which will be communicated through e-mail.

25. **Financial Commitment:** - This Tender Enquiry is being issued with no financial commitment and the Accepting Authority reserves the right to change or vary any part thereof at any stage including withdrawal of the Tender Enquiry, if it becomes necessary at any stage. Bidders fulfilling eligibility criteria specified in the bid shall be shortlisted for opening the financial /price bid.

26. The work will be executed in accordance with the provisions of this Tender Enquiry and relevant clauses of “**General Conditions of Contract (GCC-2023) as applicable to R&D Construction Establishment (RDCE WP-2024)**”, **Terms & Conditions (Appendix ‘B’)** & “**Special Conditions of Contract**” (**Appendix-‘C’**) respectively. In case of any ambiguity, the terms and conditions (**Appendix-‘B’**) will take precedence over other conditions. CCE (R&D) Estates South, Hyderabad reserves the right to amend / cancel or modify any terms / conditions of contract, partially / fully during the currency of the contract due to any reason.

27. **Clarifications/ Interpretations** :- The bidder shall carefully study the complete quotation/ tender documents and other connected documents including general and special conditions etc. and completely acquaint themselves with all documents and their contents therein. Clarifications required, if any shall be obtained from the Department before submitting the bid, so as to avoid misinterpretation of facts by the contractor. Ambiguity, if any, shall be got clarified from the Chief Construction Engineer, Accepting Authority, well in advance. In case of any query / clarification, the same may please be got clarified well before quoting for the tender. No presumption/ assumption / misinterpretation shall be accepted if contrary to the tender condition. **No representation/ explanation will be entertained in this regard at later stage. Bidders are advised to seek clarifications if required, well before submission of the bid.**

Please note that conditional quotations will be rejected, and no representation will be entertained. The decision of the **Chief Construction Engineer (R&D) Estates South, Hyderabad**, Accepting Authority will be final and binding in this regard.

28. **Accepting Authority**, shall have the right to amend, delete / add to the various provisions in the Tender documents or withdraw / cancel the invitation to tender without assigning any reason. The amendments / errata issued by the **Accepting Authority**, shall be read carefully in conjunction with the Tender documents and shall be submitted along with Tender documents as a part thereof. The contract price / rate / amount shall be deemed to have been worked out considering amendment / errata also.

29. **Acceptance of Tender by Accepting Authority** :- Accepting Authority shall Not be bound to accept the lowest or any tender or to assign reasons for Non acceptance of any Tender. Accepting Authority also reserves the right to accept a tender either in whole or in part. Breakup of prices/ items rates shall be binding on the bidder even in the case of acceptance of a tender in part.

(R Dhinakar)
Technical Officer ‘C’
for CCE (R&D) Estates South

Enclosure:

- | | |
|------------------------|--|
| 1. Appendix ‘A’ | - Scope of Work |
| 2. Appendix ‘B’ | - Terms & Conditions |
| 3. Appendix ‘C’ | - Special Conditions of Contract for Operation and Maintenance Under E/M Works |

- | | | | |
|-----|-------------------------|---|--|
| 4. | Appendix 'D' | - | Employee Profile Form |
| 5. | Appendix 'E' | - | Scope of Work & Wages Estimated Cost put of Tender |
| 6. | Appendix 'F' | - | Inventories of Plant and Equipment & Tools and Accessories |
| 7. | Appendix 'G' | - | BOQ |
| 8. | Appendix 'H' | - | Scope of Work |
| 9. | Appendix 'J' | - | Maintenance schedule of DG sets |
| 10. | Appendix 'K' | - | Maintenance schedule of Power Transformer |
| 11. | Annexure – I' | - | Undertaking for Acceptance of Terms & Conditions |
| 12. | Annexure – 'II' | - | Format of BG |
| 13. | Annexure – 'III' | - | Format For Agreement |
| 14. | Annexure – 'IV' | | Copy of JWO/CA of similar works completed and required to meet eligibility criteria. |
| 15. | Annexure – 'V' | | Performance Certificate of similar works required to meet eligibility criteria. |
| 16. | Form- 'A' | - | Bidding Capacity |

Copy to:-

Sl. No	Office Name	Fax No	Gov Mail ID
1.	Director (CW&E), New Delhi	011-23011547	dcwe-works1 @gov.in
2.	CCE (R&D) North, Delhi	011-26767225)	ccernd.north@gov.in
3.	CCE (R&D) Central, Delhi	011-26152757)	ccerndcentral1-drdo@gov.in
4.	CCE (R&D) Delhi, Delhi	011-23814902	admin.ccedelhi@gov.in
5.	CCE (R&D) West, Pune	020-25865061	ccewest-drdo@gov.in
6.	CCE (R&D) East, Kolkata	033-22420170	ccekolkata.estates@gov.in
7.	CCE (R&D) Estates North, Chandigarh	0172-2651100	cceestn.estates@gov.in
8.	CCE (R&D) South, Secunderabad	040-27751405	ccernds.drdo@nic.in
9.	CCE (R&D) Special Maintenance, Nagpur	040-27751405	ccerndestts.hq-ts@nic.in
10.	EMU (R&D), Bangalore	080-25348127	emurnd.blr-drdo@gov.in
11.	EMU (R&D), Balasore	06782-272149	emu.chp@nic.in
12.	EMU (R&D), Chandigar	0172-2639038	emurnd.chd@gov.in
13.	EMU (R&D), Chennai	044-26375919	emu-chennai@gov.in
14.	EMU (R&D), Delhi	011-23960738	emurnd.delhi@gov.in
15.	EMU (R&D), Dehradun	0135-2780379	emu.deal@gov.in
16.	EMU (R&D), DRDO Bhawan, New Delhi	011-23007934	emu.hqr@gov.in
17.	EMU (R&D), Hyderabad	040-24346246	emurnd.hyd-drdo@gov.in
18.	EMU (R&D), Jagdalpur	07782-227167	emujpr-drdo@gov.in
19.	EMU (R&D), Nagpur	0712-2520286	emudrdongp@gmail.com
20.	EMU (R&D), Nasik	0255-7279001	emu-nasik-drdo@gov.in
21.	EMU (R&D), Pune	020-25865105	emupune-drdo@gov.in
22.	EMU (R&D), Tezpur	03712-258534	emu.tezpur@gov.in
23.	CCE (R&D) Estates South, Hyderabad	For display on Notice Board	

UNDERTAKING
(To be given on company letter head)

To,
The **Chief Construction Engineer (R&D) Estates South,**
Chandrayangutta, Kesavagiri Post, Hyderabad – 500 005

Subject: **ACCEPTANCE OF TERMS & CONDITIONS OF TENDER.**

Tender Reference No: _____

Name of Tender/Work : _____

Dear Sir,

I/ We have downloaded/ obtained the tender document(s) for the above mentioned 'Tender/ Work' from the CPP Portal of www.eprocure.gov.in.

2. I/We have read and understood the provisions contained in the tender enquiry before submission of this tender and I/we agree that I/we shall abide by the terms and conditions. I/We have seen the corrigendum(s) issued from time-to-time by your department/ organisation and have taken the same into consideration while submitting this undertaking. I/We hereby unconditionally accept the tender conditions of above-mentioned tender document(s)/ corrigendum(s) in its totality/entirety.

3. This is to certify that I/we, before signing this affidavit, have read and fully understood all the terms and conditions including Special Terms and Conditions contained therein and undertake to abide by the said terms and conditions.

4. I/We have obtained a copy of the General Conditions of Contract and understood the provisions contained therein before submission of this tender and I/we agree that I/we shall abide by the terms and conditions thereof as amended, if any, elsewhere in these tender documents.

5. I am the legal entity to sign and submit bid documents and have signed the bid security declaration form and will abide the same.

6. Details of the firm are given under: -

1.	Name of the Tenderer / Company (i.e. Sole Proprietor or Partnership firm or a Company)	
2.	Type of Organization (whether public Limited / Private Limited / partnership/ Sole proprietorship) as per attached Proof	
3.	Date of Registration No. of years in Operation	

4.	Registered Address	
5.	Operational Address if different from above	
6.	Telephone No. Mobile No. Email id	
7.	PAN of Tenderer / Concerned (Self attested copy should be attached)	
8.	GST registration certificate (Self attested copy should be attached)	
9.	EPF & ESI Registration certificate No. (self attested copy should be enclosed)	
10.	Name of Proprietor / Partners/ Directors of the company/ Firm	
11.	Any other additional information (optional)	

7. I/ we certify that all information furnished by our firm is true & correct and in the event that the information is found to be false/ incorrect/ untrue, then your department/ organization shall summarily reject the bid or terminate the contract without giving any notice or reason thereof and without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

ACCEPTED BY

Date: -

Signature of
Contractor or his Authorized Rep

Format for BG

FORMAT OF BG (FORMAT FOR BANK GUARANTEE) FOR EARNEST MONEY DEPOSIT

This deed of guarantee made on day of Two Thousand _____ between (Name of Banker) having its Registered office at. _____

(hereinafter referred to as the Surety) and President of India acting by and through **Chief Construction Engineer (R&D) Estates South, Chandrayangutta, Kesavagiri Post, Hyderabad – 500 005** (herein after referred to as the "OWNER").

WHERE AS M/s.....(Contractor's name) hereinafter referred to as "CONTRACTOR" having their registered office atis bound to deposit with the owner by way of Earnest money Rs..... (Rs..... only) in connection with their tender for(name of work) with reference to "OWNER" tender enquiry No.....dated as per specifications and terms and conditions enclosed therein. Whereas the contractor as per clause No. 10 of invitation to tender has agreed to furnish a Bank Guarantee valid up to (date) instead of deposit of earnest money.

NOW THIS WITNESS

That the surety in consideration of the above Tender made by the CONTRACTOR to the OWNER hereby undertakes to guarantee payment on demand to the owner of the said amount of Rs..... which the contractor is bound to deposit with the OWNER by way of earnest money in connection with his tender.

Notwithstanding anything contained in the foregoing, the Surety's liability under the guarantee is restricted to Rs..... (Rupees only). The guarantee shall remain in force and affective up to and shall expireand become ineffective on intimation there-of being given to the surety by the owner in which event this guarantee shall stand discharged.

This guarantee shall Not be affected by any change in the constitution of the OWNER, CONTRACTOR or the surety.

The OWNER shall be eligible to make any claim under this guarantee only if the contractor submitting the tender resales from the offer or modify the terms and conditions thereof in a manner Not acceptable to the OWNER or fail to sign the contract and deposit initial security deposit within 10 (Ten) days after the OWNER has advised the contractor the acceptance for (name of work) on mutually agreed terms and conditions. The OWNER's decision in this regard shall be final and binding.

The surety cannot revoke this guarantee during its currency except by the previous consent of the OWNER in writing.

Notwithstanding anything contained hereinabove unless a demand or claim under this guarantee is made on the surety in writing on or before the surety shall be discharged from all liabilities under this guarantee thereafter

for and on behalf of
(Banker's Name)

FORMAT FOR AGREEMENT

This AGREEMENT made and entered into this _____ day of _____ Two Thousand _____ between the President of India acting by and through **Chief Construction Engineer (R&D) Estates South, Chandrayangutta, Kesavagiri Post, Hyderabad – 500 005** hereinafter referred to as the "OWNER" (which expression shall, unless excluded by or repugnant to the context or the meaning thereof, be deemed to include its successors and assigns) of ONE PART.

AND

M/s. _____ having their registered office and principal place of business at _____

hereinafter referred to as the "CONTRACTOR" (which expression shall unless excluded by or repugnant to the context or the meaning thereof, be deemed to include its successors and assigns) of the OTHER PART.

WITNESSETH THAT

WHEREAS, the OWNER invited the CONTRACTOR to submit tender for _____

AND

WHEREAS, the CONTRACTORS submitted their tenders to the OWNER for execution of the work in accordance with the tender documents including technical specifications, schedule of items and tender drawings vide his letters _____

AND

WHEREAS, the OWNER has accepted the tender submitted by the CONTRACTOR for the execution of the aforesaid work with reference to letter No. _____ AND WHEREAS, the CONTRACTOR has agreed to execute the aforesaid work on the terms and conditions as stated in tender documents & general conditions of contract and has also agreed to submit to the OWNER initial security deposit required to be paid on the date of signing of the agreement, in accordance with the Tender.

NOW, THEREFORE, in consideration of the foregoing promises and mutual covenants herein contained, the parties hereby agree to fulfil the obligations stated in the tender documents along with contractors offer.

IN WITNESS

WHEREOF THE **Chief Construction Engineer (R&D) Estates South, Chandrayangutta, Kesavagiri Post, Hyderabad – 500 005**, has set his hand for & on behalf of PRESIDENT OF INDIA.

AND

Sh. _____ duly authorised representative of the CONTRACTOR for and on behalf of M/s. _____ has affixed his signature and the seal of the said company in accordance with Articles of Association.

Signed and delivered by
delivered by

For and on behalf of
South
M/s. _____
Officer

INDIA
Witness

- 1.
- 2.

Signed and

CCE (R&D) Estates

Accepting

For and on behalf of PRESIDENT OF

- 1.
- 2.

DETAILS OF SIMILAR WORKS FOR PREQUALIFICATION CRITERIA

The tenderer shall support this form by adequate documentary evidence in the form of certified copies of work orders and completion certificates. Each project should be supported with performance certificate as per **Annexure – ‘V’** and certified by the Owner not below the rank of Executive Engineer or equivalent/Client for whom contractor executed the work.

Details of all similar works completed during last seven years ending last day of month previous to the one in which tenders are invited:

Ser No.	Particulars	Work-I	Work-II	Work-III
1.	Name of Work / Project & Location			
2.	Contract price as ordered (Rs.)			
3.	Actual Completion Cost (Rs.)			
4.	Date of award			
5.	Stipulated Date of Completion			
6.	Actual date of Completion			
7.	Extension of time (if any) granted with or without levy of compensation			
8.	Whether the proof of TDS by the owner attached. (Yes or No)			
9.	Performance certificate as per Annexure V enclosed (Yes or No)			
10.	Details of the works under which contractor is seeking prequalification			
11.	Litigation / Arbitration Cases pending / in progress with details *			
12.	Employer's / Owner's Name			
13.	Employer's Address: Telephone / Fax Number:			
14.	Name and address / telephone no. E-mail address: of officer (Employer's / Owner's) to whom reference to be made (if required)			
15.	Remarks			

* Indicate gross amount claimed and amount awarded by the Arbitrator

Signature of Bidder(s)

PROFORMA FOR PERFORMANCE CERTIFICATE

Name & Address of the Client :
 Details of Works executed by :

1	Name of work with brief particulars incl. location	
2	Agreement No. and date	
3	Agreement amount (Rs. In Lakhs)	
4	Date of commencement of work	
5	Stipulated date of completion	
6	Actual date of completion	
7	Details of compensation levied for delay (indicate amount) if any	
8	Gross amount of work completed and paid (Rs. In Lakhs)	
9	Name of address of the authority under whom works executed	
10	Whether the contractor employed qualified supervisor/staff during execution of work	Yes/No
11	i) Quality of work (indicate grading)	Outstanding / Very Good / Good / Satisfactory/ Poor
	ii) Amt. of work paid on reduced rates. If any	Yes/No
	1 i) Did the contractor go for arbitration?	
	ii) If yes, total amount of claim	
	iii) Total amount awarded	
13	Comments on the capabilities of the contractor	
	a) Technical proficiency	Outstanding / Very Good / Good / Satisfactory/ Poor
	b) Financial soundness	Outstanding / Very Good / Good / Satisfactory/ Poor
	c) Mobilization of manpower	Outstanding / Very Good / Good / Satisfactory/ Poor
	d) Mobilization of T&P	Outstanding / Very Good / Good / Satisfactory/ Poor
	e) General behaviour	Outstanding / Very Good / Good / Satisfactory/ Poor
	f) Over all grading	Outstanding / Very Good / Good / Satisfactory/ Poor

Signature of the Accepting Authority/ Authorized Signatory

Calculation of Bidding Capacity
Details of Existing Commitments and On-going works

Name of the Firm / Bidder : _____

Name of Work : _____

Bidding capacity of vendors will be calculated during the technical evaluation of each bid as per the given below formula / procedure.

The bidding capacity shall be worked out by the following formula :-

The bidder should possess the bidding capacity as calculated by the specified formula.

Available bid capacity = $(A \times N \times 2) - B$, where

A = Maximum value of Civil Works (including Civil Maintenance and Estate Management & Maintenance works) as relevant to works being executed in any one year during the last Seven years (updated at the current price level), taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the work for which bid has been invited.

When the value of N is less than 0.50 years then for calculation purpose minimum value of N shall be taken as 0.50.

B = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bid have been invited, the amount of works which are stuck up due to local body clearance, environmental clearance, court decisions etc., shall not be considered for calculation of B. NIT approving authority may take a final decision on other justified reasons.

Sl. No.	Name of work / Projects & Location	Owner or sponsoring organizations	Contract value in Crores of rupees	Date of commencement as per contract	Stipulated date of completion	Up to date percentage progress of work	Remaining work in percentage (100-column 7)	Existing commitment (column 4 x column 8 /100)	Name and address / telephone number of officer to whom reference may be made	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(10)

Total (B) = Rs. _____

Maximum Turnover in last seven years = Rs. _____

Updated value of turnover (A) = Rs. _____

No. Of years (N) = Rs. _____

Bidding capacity = $\{[AxNx2] - B\}$

Certificate:- I certify that all the awarded and ongoing work have been included in the above list.

Signature (S) of BIDDER (S)
(WITH STAMP)

Net worth for the Financial Year 2024-2025 is (Rs. In Figure _____)

..... Signature, Name and designation of Authorised Signatory For and on behalf of (Name of the Applicant) Name of the Statuary Auditor's Firm/Chartered Account: _____ Signature: - _____ Seal of the Audit / Chartered Accountant Firm: Name of Signatory (in Capital): _____ Membership No. : _____ Firm Regn No. : _____
--	--

Note:- All information sought w.r.t. firm / Chartered Accountant is mandatory.

APPENDIX-A

NAME OF WORK :- Operation and Maintenance Services for Electrical Installations Internal / External Electrifications, DG Sets, Area Lighting, Fire Fighting System, Fire Alarm System, Water Supply, Canes and Air Conditioning Plants Including Clean Room Facility (Class/10000/1000) at MTRDC, Bangalore

SCOPE OF WORK

Scope of work under this contract includes **“Operation and Maintenance Services for Electrical Installations Internal/External Electrifications, DG Sets, Area Lighting, Fire Fighting System, Fire Alarm System, Water Supply, Canes and Air Conditioning Plants Including Clean Room Facility (Class/10000/1000) at MTRDC, Bangalore”** by engaging the following manpower & items/ materials as given under the scope of work & terms and conditions of the tender enquiry: -

Sl. No	Description/Category	Skill Level	A/U	Qty
1.	Supervisor	Highly Skilled	No	1
2.	Technician (Electrical)	Skilled	No	7
3.	Plumber/Carpenter	Semi Skilled	No	3
4.	Helper	Un Skilled	No	4
5.			Total	15
6.	Day to Day Operation and Maintenance of E/M Services (Refer Special Condition of Operation and Maintenance of E/M Services Appendix – ‘C’)			
7.	Uniform and Accessories: Uniforms (02 sets for each) including Shoes/Boots/Protective Gear/Gloves etc. for all Staff Per Annum (including winter clothing wherever applicable) @4000/12 Months X Total No of staff.			
8.	Duration of Work	12 (Twelve) Months		

TERMS & CONDITIONS

(TO BE READ IN CONJUNCTION WITH GCC-2023, AS A SPECIFIC SEPARATE GCC FOR MAINTENANCE WORKS HAS NOT BEEN FORMULATED)

MANPOWER

EMPLOYEES AND STAFF

1. The contract shall supply manpower for the services required as per the Tender documents from the date as mentioned in the Letter of Intent / Job Work Order / Contract Agreement and shall continue till one year / specified time period unless it is curtailed or terminated by the Office of Accepting Authority or a person authorized by him owing to deficiency of services, sub-standard quality of skilled and unskilled manpower deployed, breach of contract, reduction or cessation of the requirements etc. This contract may be renewed for a further period of one year on the terms and conditions mentioned in the tender document and the contract agreement. The Service Provider must have valid registration from the concerned Govt. Authorities, i.e., Labour Commissioner, Provident Fund Authorities, Employees State Insurance Corporation etc., and a copy of all the registration should be submitted.

2. **Continuation of manpower as per GeM guidelines** (Deployment of Existing working / deployed resources): The existing working / deployed resources having job satisfactory certificate, will be continued by the successful service provider under the new Contract also - subject to the terms and conditions of the new contract concluded on the basis of the bid.

3. The contractor shall employ persons of good moral character and repute. The persons employed shall have the desired professional qualifications, experience and competency in the specified field / area of work to perform the entrusted duties properly. The personal Bio-data of all persons employed shall be submitted to this office on assumption of contract along with the complete details of their qualifications, ESI, EPF, Bank Account and other relevant key information. Copies of Aadhar Card along with EPF / ESI Enrolment Nos / E-Pehchan card of Individuals shall also be submitted along with other details.

4. The duly filled **Employee Profile Form** as per proforma given in **Appx - D** must be submitted by the contractor for all the personnel employed for the purpose. The contractor shall also obtain the verification of the character antecedent of the personnel employed by him through the commissioner of police / competent civil authority / Police station by paying the prescribed fee from the place of origin of the individuals or from the concerned Dept. of respective state Govt. The verification forms from the concerned authority shall be submitted to the concerned Estate Management Unit (R&D) / Project Manager under whom the area of Operation & Maintenance falls, under intimation to this office, within one month from the date of issue of the work order. The Contractor shall be personally responsible for the conduct of his employees throughout the duration of this work order. In case the contractor fails to submit the verified form of the employees within the prescribed period, a notice to that effect shall be issued to the contractor by the Engineer-in-Charge or Accepting Authority / his authorized Representative, to submit the forms within 30 days. In the meantime, the contractor shall submit an undertaking that he will be responsible for the conduct of the staff employed by him, personally till submission of the above forms by the revised due date. Even after the above notice period, if the verification forms are not submitted, the services

of the un-verified staff shall be terminated and they be marked as absent till suitably verified relief is provided by the contractor and the contract shall be liable for termination. No representation will be entertained in this regard and the decision of the **CCE (R&D) Estates South, Hyderabad**, shall be final and binding.

5. All employees employed by the agency shall be in the age group defined as per labour laws with good health and sound mind. The employees of the agency shall be liable to security screening by the Security Staff/ Agencies.

6. The persons deployed should be polite, cordial, and efficient while handling the assigned work and their actions should promote good will and enhance the image of the Office of Accepting Authority. The Service Provider shall be responsible for any act of indiscipline on the part of the persons deployed. The persons deployed by the Service Provider should have good police records and no criminal case should be pending against them.

7. For all intents and purpose, the persons deployed by the Service Provider for execution of the contract shall be the employees of the service provider. The Service Provider shall be the "Employer" within the meaning of different Rules & Acts of different Labour Legislations in respect of the manpower employed and deployed in this Department. The persons deployed by the Service Provider for execution of the contract shall be the employees of the service provider & the persons deployed by the Service Provider shall not have any claim whatsoever like employer and employee relationship **with Accepting Authority** either implicitly or explicitly. The persons deployed by the agency in the Office of Accepting Authority shall not have claims of Master and Servant relationship nor have any principal and agent relationship with or against the competent authority of the Office of Accepting Authority.

8. The entire financial liability in respect of Manpower Services deployed in the service contract shall rest with the respective Service Provider and the Office of Accepting Authority will in no way be liable. It will be the responsibility of the Service Provider agency to pay to the person deployed a sum not less than minimum wage fixed and adduce such evidence as may be required by the Office of Accepting Authority in that behalf.

9. The persons so deployed shall be under the overall control & supervision of the service provider, who shall be liable for payment of their wages etc. and all other dues within the stipulated time, which the service provider is liable to follow the various labour resolution and other statutory provision. No additional payment shall be released for labour / conveyance, transportation, etc. Decision of the Office of Accepting Authority in this matter shall be final and binding on the contractor. Office of Accepting Authority shall not be a part of any such liability.

10. The persons deployed by the Service Provider shall not claim nor shall be entitled to pay, perks and other facilities admissible to casual, ad-hoc, regular/ confirmed employees of the Office of Accepting Authority during the currency or after expiry of the contract.

11. The Service Provider shall be solely responsible for the redressal of grievances or resolution of disputes relating to persons deployed. The Office of Accepting Authority shall, in no way, be responsible for settlement of such issues whatsoever.

12. In case of termination of this contract on its expiry or otherwise, the persons deployed by the service provider shall not be entitled to and will have no claim for any absorption nor for absorption nor for any relaxation for absorption in the regular otherwise capacity in the Office of Accepting Authority. **Undertaking from the person deployed to this effect shall be required to be submitted by the Service Provider.**

13. All personnel will be treated as contractor's employees for all purposes and the Accepting Authority shall have no liability in any respect. The Accepting Authority / his authorized representative will not be responsible for any injury or loss of limb or loss of life of any of the contractor's employees that may take place while on duty. Any compensation or expenditure towards treatment for such injury or loss of limb or loss of life shall be the sole responsibility of the contractor. Legal cases, if any, shall also be dealt by the contractor and the department has no liability in this regard.

14. **No permanent / temporary employment by Department shall be demanded by any person employed by the contractor at any stage as they are contractor's employees for all purposes. Such demands will not be entertained at any cost. Contractor shall be solely responsible to deal with such cases including legal cases, if any, arise in those circumstances.** The Contractors' personnel are not entitled for any facility / amenities that are extended to the employees of the Laboratories / Establishments. The contractor should provide the authorized amenities to their employees as per rules at his own cost.

15. **Identity Cards:** Identity Cards for the contractor's employees will be issued by the contractor or his authorized representative. In case any employee is proceeding on long leave or suspended / dismissed from service or leaves the job, identity cards in respect of such employee, must be withdrawn and taken back by the contractor and / or by his authorized representatives so as to avoid misuse. All the entry passes shall be surrendered when they are no more required or on completion of the contract period. In case the employees of the contractor have to work in restricted areas, the contract manager / contract supervisor / his authorized representative shall arrange to make entry of all employees at respective gates and collect tokens issued by the security office and then issue them to the labourers. Such tokens shall be accounted for and shall be returned back to the issuing authority at the end of the day as per procedure. The contractor will be solely responsible for such action. Verification documents may also be required to be submitted to the security sections of the Laboratories / Establishments as and when demanded by them to facilitate smooth entry for provision of various services. Persons provided as relief to the existing employees shall also be security verified as above and no persons will be employed without verification.

16. **Attendance:**

(a) The contractor shall employ required manpower, as per the terms and conditions of the work order. Proper attendance register shall be maintained, which will be subjected for verification as and when required by Accepting Authority or his authorized representative. Replacement for persons proceeding on leave or sick etc. shall be catered by the contractor. No person will be sent on leave without proper relief. The attendance of the staff will be verified by the Estate Manager by way of inspection, surprise checks, etc. If manpower deployment by the contractor is not as specified in the contract, a notice will also be issued to the contractor and if the same thing is repeated, the contract will be liable for termination as per para below.

(b) **Recovery of Absentees:** If any of the manpower (up to and including 10% of number of employees to be engaged under this contract) is found to be absent on any particular day, an amount equal to the minimum wages shall be deducted from the monthly bill of agency. If the number of absentees is more than 10% of employees engaged, amount equal to minimum wages +25% penalty will be deducted.

17. Insurance cover protecting the agency against all claims applicable under the Workmen's Compensation Act, 1948 shall be taken by the Contractor. The Contractor shall arrange necessary insurance cover for any persons deployed by him even for short duration. The office of Accepting Authority shall not be responsible for any damages, losses, claims, financial or other injury to any person deployed by service providing agency in the course of their performing the functions/duties, or for payment towards any compensation during their deployment period. This office shall not entertain any claim arising out of mishap, if any that may take place. In the event of any liability / claim falling on this office, same shall be reimbursed / indemnified by the Contractor. The Agency shall cover its personnel for personal accident and / or death while performing the duty.

18. The Service Provider shall provide a substitute well in advance if there occurs any probability of the person leaving the job due to his / her own personal reasons. The payment in respect of the overlapping period of the substitute is the responsibility of the Service Provider. The Service Provider shall be responsible for timely deposit of Provident Fund and Employees State Insurance.

19. **MISBEHAVIOUR OF EMPLOYEES:** The employees of the contractor shall maintain strict discipline and not use any violent, abusive or offensive languages while inside the premises. Smoking and consuming alcohol inside the premises is strictly prohibited. In the case of misbehaviour, the office of Accepting Authority has the right to terminate the contract. It will be mandatory for the conducting agency to brief their personnel in advance and apprise them of the conduct, expected for them, while working in an institution of national importance. Nothing prevents the office of Accepting Authority to advise the contractor about any such issue, or any erring personnel engaged by the contractor, which warrant urgent action, in the interest of work and its fast disposal.

20. Any personnel deployed by the agency, refuses work, or creates indiscipline would have to be immediately replaced with the consent of the office of Accepting Authority, who reserves the right, to ask the Agency to terminate the services of any of the Agency's employees immediately on grounds of noncompliance of duties or if found guilty of misconduct. The office of Accepting Authority will in no way be held responsible or liable for any loss, caused by negligence or any other harmful action on the part of the employee of the Agency.

21. In case, the person employed by the successful bidder commits any act of omission / commission that amounts to misconduct /indiscipline/ incompetence / security risks, the successful bidder will be liable to take appropriate disciplinary action against such persons, including their removal from work, immediately after being brought to notice, failing which it would be assumed as breach of contract which may lead to cancellation of contract.

22. **Undesirable Activities:** The contractor will not allow or permit the employees to participate in any trade union / Labour Union activities or agitation in the premises or the **CCE (R&D) Estates South, Hyderabad**, . It must be ensured by the contractor that none of the workers are in intoxicated condition while on duty. If any individuals employed are found to be in intoxicated state, they will be marked absent and their services will be terminated forthwith. The contractor shall provide relief immediately.

23. Assistance in procurement of men and materials: - Except as otherwise provided, all personnel (not below 18 years of age), materials, equipment, licenses, transport and any other thing required for the execution of the contract shall be managed by the contractor under his own arrangement and the **CCE (R&D) Estates South, Hyderabad** shall not be responsible for the same in any way, what so ever. Any assistance required may however, be considered and given on receipt of a requisition in writing.

24. **Secrecy:** The contractor shall ensure that all the persons employed in connection with this contract have notice that the Indian Official Secret Act 1923 (XIX of 1923) applies to them and shall continue during contract period.

25. **Laws governing the contract:** The contract shall be governed by the laws of India for the time being in force. The contractor shall comply with the statutory provisions or the regulations and / or by-laws of any local authority and / or any public service, company or authority affected by the work, shall pay all charges there under and shall indemnify government, against any fees, or charges demandable by law under such acts, regulations and / or by-laws in respect of the work.

26. **Supervision of Works:** The contractor and / or his authorised representative shall regularly visit the site / location where the contract services are being rendered by him.

27. **Sub-contracting of Works:** The contractor will not further sub-contract the contract to any other person or persons or third parties. If sub-contracting is detected at any time during currency of the work, the **CCE (R&D) Estates South, Hyderabad** shall have the full right to terminate the contract forthwith without any notice and forfeit the security deposit without prejudice to any other rights available under the terms of contract or under law.

28. **Uniforms:**

(a) **Provision:** The responsibility of providing approved uniforms to the employees for identification shall be that of the contractor. It may be ensured that all contractor's employees irrespective of type of service shall be in uniform while performing duties. Aprons shall be provided to all Conservancy & Area Clearance contract labour.

(b) **Approval:** The uniform shall be got approved by the concerned Estate Manager. For default by the contractor in providing uniforms, an amount as specified in the para (c) below shall be deducted on monthly basis. If such instances are repeated, the accepting officer reserves the right to terminate the contract and the contractor shall have no claim whatsoever on this matter. A penalty register shall be maintained by the concerned Estate Manager / or his authorized rep under whose jurisdiction the services are being executed.

(i) The penalty amount shall be calculated on the following basis: -

➤ Normal uniform @ Rs. 4000/- per annum per head for all areas.

29. **SECURITY DEPOSIT:** Security deposit @ **2.5%** of the value of the job work order / contract agreement shall be submitted by the L1 bidder in the form of BGB / FDR issued by a scheduled bank within 21 days from the issue of job work order/ LOI, valid up to 15 months from the state date of the job work order / contract as

mentioned in LOI/ Work Order. The BGB / FDR shall be in favour of **Accepting Authority**. The security deposit shall be returned to the contractor after successful completion of the work and proper fulfilment of the obligations under the contract for which the **CCE (R&D) Estates South, Hyderabad** shall be the sole judge and on production of "No Demand Certificate" during the submission Final Bill. Firms are bound to transfer EPF account in respect of contractual Employees on expiry of contract period to the next successful Firm.

Note: If the CA / JWO is extended beyond three (3) months, additional security deposit for the increased value of CA / JWO and the extended period is required to be submitted by the contractor in the following manner:

- i) In case of Bank Guarantee (BG), revised BG with revised value and validity.
- ii) In case of Fixed Deposit (FD), FD for differential value with validity.

Note:-

i) The BID Security (EMD) of the successful bidder shall remain with Accepting Authority until the receiving of performance security deposit of value defined above. However, the BID Security of Unsuccessful bidders/parties will be released after completion of the tender process. Bid security of the successful bidder will be converted into performance security.

ii) No interest will be paid on the security deposit amount by the Office of Accepting Authority.

iii) The Performance Security can be forfeited by order of the Office of Accepting Authority, in the event of any breach or negligence or non-observance of any terms/condition of contract or for unsatisfactory performance or for non-acceptance of the work order. On expiry of the contract, such portion of the said Bank Guarantee/ demand draft as may be considered by the Office of Accepting Authority sufficient to cover any incorrect or excess payments made on the bills to the firm, shall be retained until the final audit report on the account of firm's bill has been received and examined.

30. **Statutory Payments and other Conditions:** - It is mandatory for the principal employer as well as the contractor to timely make the payment of the statutory and regular dues related to the contractual employees. The prevailing rates of such known regulatory / statutory payments have been listed in subsequent paras below. However, any change in the rates of statutory payment rates may subsequently be deducted / paid during currency of contracts. Further, any such regulatory payments which are not listed below and not known to tender inviting authority should be taken into account by the bidder. The bidder should quote according and no additional reimbursement shall be done. This clause should be included in the contract.

(a) **Payment of EPF:** On behalf of Principal Employer, the service provider will deposit the employers' share of EPF payments @13% of the salary up to ceiling limit of ₹15000/- per month on account of respective employees of a particular job work order through the appellate / statutory authority (through e-payment) at the periodicity as laid down in the respective governing acts / rules of the Government of India.

(b) **Payment of ESI:-** On behalf of Principal Employer, the service provider will deposit the employers' share of ESI payments @3.25% of the salary up to ceiling limit of ₹21000/- per month on account of respective employees of a particular job work

order through the appellate / statutory authority (through e-payment) at the periodicity as laid down in the respective governing acts / rules of the Government of India. If the wage of an employee exceeds the wage limit of ₹21,000 after April or October for the respective contribution periods* , then the employee continues to be an employee till the end of that contribution period. Hence, the contribution is to be deducted and paid on the total wages earned.

*' Contribution Period of ESI are divided in two parts in a year i.e., from 1st April to 30th Sept and 1st Oct to 31st March of the year following.

(c) **Insurance Cover** :- Please note that the following Insurance cover (Workmen Compensation Policy and Group Mediclaim Insurance for self Employee) is mandatorily to be procured & paid by the contractor (the proof has to be submitted along with claiming the monthly bills) for contractual employees not covered the ESI cover (having wages more than Rs. 21,000/- per month), are deemed to be included in the minimum service charges @5.00% towards contractor's profit & overhead being paid over the minimum fair wages (MFW):-

(i) **Workmen/Employee Compensation Insurance Policy**: Worker Compensation Insurance is an insurance cover offered by the employer to the workers under the Employee Compensation Act. The insurance plan should cover statutory liabilities of an employer in case of injury / death of a worker caused due to an accident during employment.

- Death / Injury by accident sustained in the course of employment.
- Medical Expenses.

(ii) **Group Mediclaim Insurance** :- The Policy should cover Hospitalisation Expenses for In-Patient Care (allopathy, ayurveda and homeopathy) or Day Care Treatment reasonably and customarily incurred for treatment of an illness contracted / injury sustained during the Policy period. The Policy shall provide for Pre-Hospitalisation (30 days) and Post Hospitalisation (60 days) expenses, 140+ Day Care Procedures, Mental Illness Treatment, HIV / AIDS Treatment, Organ Donor's Medical Expenses, Ambulance Charges, Morbid Obesity Treatment. The Policy shall provide Health Insurance Coverage (up to a minimum of Rs. 3,00,000/- Only) having the following features:-

- No Pre-Medical Health Checkup.
- Cashless Treatment at Network Hospitals.
- Maternity Coverage.
- Pre-Existing Disease Cover.
- No Waiting Period.
- **Ambulance Charges.**

(d) **Bonus** : - The bonus shall be paid by the contractor on behalf of the principal employer as laid down in the respective act. This amount shall be paid to the workers distributed over 12 months. If there is any change in Govt. policy regarding increase / decrease in the amount, shall be reimbursed / recovered accordingly. As per Bonus Amendment Act-2015, the amount for the bonus shall be paid to employees as 8.33% of the minimum fair wages subject to ceiling limit prescribed by Chief Labour Commissioner (C) i.e. (presently 21000/-) or 7000/- whichever is higher. The bonus shall be Operative Guidelines: FY-2025-26 **CCE (R&D) Estates South, Hy-**

derabad Page 7 of 110 reduced proportionally for the days employee does not work. (Point No. 13 of Bonus Act-1965).

(e) **GST:** - The Contractor shall pay the GST as per periodicity and rate as laid down by the Government and as amended from time to time. The quoted amount/ quoted percentage by the contractors shall be all inclusive and as such no separate payment / reimbursement will be made in this regard. GST shall be considered for all type of payments made by department through contractor whether Statutory payments or any regular or store payments. The rates of TDS for the GST to be deducted as per the rules of Gol published time to time. GST number of the service provider and CCEs / EMUs and place of service / supply should be mandatorily mentioned on the bill. The GST number of CCEs / EMUs for corresponding state and place of work should be mentioned on each Job Work Order / Contract Agreement.

(f) **Penalty:-** In the event of the Contractor's failure to execute the work entrusted to it under this Agreement satisfactorily and the Office of Accepting Authority shall have to make alternative arrangements to do it then the difference of cost incurred by the Office of Accepting Authority thereby shall be recovered from the Contractor's unpaid bills and Contract Security deposit. Since the contractor is being paid all-inclusive monthly payment, non-payment of EPF, ESI, Bonus and GST will amount to violation of laid down / agreed conditions as per work order / agreement. **CCE (R&D) Estates South, Hyderabad** reserves the right to cancel the work order without any notice and also ban the firm for default, as the case may be. Also, **CCE (R&D) Estates South, Hyderabad** reserves the right to recover any over payment or any payment due to any employee of the contractor till cancellation of work, either from the same work bill or from any other bill due to the contractor from any Government source.

Notes: -

i) **Non-Timely Payment to Employees:** In case contractor regularly fails to release the wages for the preceding month on or before 7th of every month (for three months during the currency of the contracts) then a penalty @ Rs 500/- per day for a week and Rs 1000/- per day thereafter will be imposed after the stipulated time period mentioned i.e. 07th of every month at the discretion of Engineer-In -Charge.

ii) **Penalty for Absentees:** In case, if any manpower (up to 10% of total number of employees engaged under any contract) is absent on particular day, an amount equal to the minimum wages of the absent employees will be deducted from the contractor's monthly bill. If the number of absentees Operative Guidelines:

FY-2025-26 **CCE (R&D) Estates South, Hyderabad** Page 8 of 110 are more than 10% of employees engaged, amount equal to minimum wages +25% penalty will be deducted.

iii) **Late Submission of Bills by the firms:** - "The Firm shall submit all bills and invoices for payment of manpower wages to the CCE / EMU office within 15 days following the end of the preceding month. Additionally, the Estate Manager / Project Manager shall submit the same bills to the paying authority within 30 days from the end of the month. In the event that the Firm fails to submit the bills within the specified time frame, a penalty of 1% of the total outstanding amount will be imposed for each week the bill remains unpaid or unsubmitted

beyond the agreed submission deadline. This provision is intended to ensure timely invoicing and payment processing, and applies to all O&M contracts."

iv) The powers of the Accepting Authority under these conditions shall in no way effect or prejudice the powers in certain events to terminate the contract vested in him as herein provided nor forfeiture of deposit mentioned under clause above.

v) Accepting Authority reserves the right to levy a penalty, on a contractor found paying less than minimum wages prescribed by the Government of India, Ministry of Labour & Employment, Office of the Chief Labour Commissioner (C), New Delhi from time to time and wages decided by the Office of Accepting Authority in such cases for which minimum wages are not prescribed by the Government.

vi) **In case the selected service provider leaves the work before completion of the period of contract then Office of Accepting Authority shall be entitled to forfeit the performance security.**

(g) The mandatory payments of EPF (Employer's Share only), ESI (Employer's Share only), Bonus & GST wherever applicable will be paid by the contractor as and when due as stated above and payment receipts / proof of payment issued by concerned appellate / statutory authorities including breakup details of payments (Nominal Roll of employees, wages paid, period of mandatory payments, amount paid and their account detail thereof) in respect of above obligatory payments/ taxes shall be submitted to **CCE (R&D) Estates South, Hyderabad** through respective Engineer-in-charges on monthly basis. An undertaking in an approved format, duly countersigned by the Engineer-in-Charge/ Estate Manager shall also be submitted by the contractor, along with each monthly bill, stating that the minimum fair wages and these statutory payments are being paid by him to his employees employed for this work, regularly.

(h) **The EPF (UAN) and ESI** account numbers of all employees employed for any particular work shall be submitted to the engineer-in-charge in a reasonable period of time but not more than 45 days from the date of issue of work order. All other connected documents like Form - 'C' and Form - 'D' etc., as required by the department duly certified and signed by the Engineer-in-Charge / Estate Manager shall also be submitted.

(j) **Labour Licence:** As per Contract Labour (Regulation and Abolition) Act, 1970, to every establishment in which 20 (Twenty) or more workmen were employed on any day of the preceding twelve months as contract labour, it is mandatory to obtain labour licence from the Labour department in the respective states. In such case, Form III will be issued by the Principal Employer to the firm for applying the Labour licence. All the CCEs / EMUs are requested to obtain the Labour licence of their jurisdictions to avoid CTE and Audit objections. Operative Guidelines: FY-2025-26 **CCE (R&D) Estates South, Hyderabad.**

(k) **Electrical Licence:** For contractor(s) executing electrical works, this is a mandatory requirement to ensure safety and compliance with the electrical codes and regulations under clause 45 of the Indian Electricity Rules 1956, as amended.

- (i) For executing Composite Operation & Maintenance Works, which includes maintenance of Electrical Works, the contractor(s) shall submit an undertaking, provided that they do not possess it in their own name, that they shall associate with an agency having valid electrical license from the competent authority in its name for execution. Such agency shall keep valid license throughout the period of execution by getting it renewed at suitable intervals. In event of any default on the part of the contractor in this regard, its enlistment and authority to work with DCW&E, DRDO will also automatically cease to be valid.
- (ii) For exclusive works of Operation & Maintenance of Electrical Installations, the contractor(s) shall possess valid 'Electrical Licence' of the appropriate voltage class, valid for the full period of work under the published tender(s). If the validity of the Electrical Licence is expired / not valid for the full period of the published tender(s), the L1 contractor will have to submit the same within one month of expiry of certificate, failing which, the contract would be liable for termination. If the Electrical Licence is not available, the L1 contractor will have to submit the same within a period of three months from the date of commencement of the work, failing which, the contract would be liable to termination along with banning / blacklisting of the firm for a minimum period of two years.
- (iii) No payment towards getting the Electrical Licence / registration would be made by the department.

(l) Payment of Consumable Spares, Overhauling, Repairs and Servicing of the Machine & Periodical Services:

- (i) For maintenance purposes the Diesel (if applicable) / consumables / accessories and other replaceable items which are not covered in scope shall be procured on prior permission from **CCE (R&D) Estates South, Hyderabad**. Cost of the procured items/services except purchase of diesel will be paid along with the monthly maintenance bill on production of purchased bills with profit of 10% (Ten Percent) over the purchase bills. All replaceable shall be of standard make or approved by the Authorised Rep. / Engineer-in-charge of **CCE (R&D) Estates South, Hyderabad**.
- (ii) **All periodical maintenance of Diesel Generator (DG) Sets i.e B-Check / C-Check shall be carried out by the Original Equipment Manufacturer (OEM) or its authorized service representatives. In cases where the OEM or its authorized service partner is not available, maintenance may be carried out by a competent third-party service provider, subject to the following conditions:**
 - (aa) **The third-party service provider must have demonstrated experience and technical capability in servicing the specific make and model of the DG set.**
 - (bb) **Only genuine OEM-recommended spare parts shall be used during maintenance.**
 - (cc) **Detailed service reports, including parts replaced and work performed, must be submitted for verification.**

- (dd) **Prior written approval must be obtained from the competent authority before engaging any non-OEM service provider.**
- (ee) **All safety and compliance standards as per OEM guidelines must be strictly followed."**
- (ff) **Original Equipment Manufacturer (OEM) or its authorized service representatives and competent third-party service provider have to ensure adherence to manufacturer-specific service protocols, maintain warranty validity, and ensure the safe and efficient operation of the equipment.**
- (gg) **Periodical maintenance services for DG Sets carried out by the OEM shall be reimbursed upon submission of original paid invoices or purchase bills. Payments will include a profit margin of 10% (ten percent) over the actual invoice amount. This Overhauling, Repairs and Servicing of the Machine & periodical services to be carried out with prior permission of CCE (R&D) Estates South, Hyderabad.**
- (hh) **Any replaceable items not covered under the standard maintenance scope shall be procured from the consumables sub-head, subject to prior approval from the CCE (R&D) Estates South, Hyderabad. The cost of such procured items or services will be reimbursed along with the monthly maintenance bill upon submission of original purchase bills. Payment will include a profit margin of 10% (ten percent) over the invoiced amount. All replaceable shall be of standard make or approved by the Authorised Rep. / Engineer-in-charge of CCE (R&D) Estates South, Hyderabad.**
- (iii) **The B check shall be carried out by the selected firm exclusively at designated hard stations where access to the Original Equipment Manufacturer (OEM) is not feasible during the harsh winter season. These stations are characterized by extreme weather conditions and logistical constraints that may prevent timely OEM support. The firm must ensure that all necessary personnel, tools, and spares are available at these locations to carry out the B check in compliance with the applicable maintenance standards and protocols. Adequate documentation and reporting of all checks performed must be maintained and submitted to the concerned authority.**
- (iv) **Procurement of Diesel: For contracts involving operation of DG Set(s), Central Heating Plants and / or any other equipment, the diesel required for day-to-day running of DG sets shall preferably be supplied by the Department / User. In case of non-supply of diesel by the department / user, the contractor shall procure the diesel at the prevailing market rates as per the requirement of diesel from time to time in consultation with the Engineer-In-Charge / Users. The total quantity of the diesel used during the period of contract shall not exceed the estimated quantity of the diesel without the prior approval of the CCE / EMU. The payment towards the procurement of diesel shall be made on actuals on production of original purchase invoice (to be signed by the users) plus Transportation Charges per litre of**

diesel supplied as quoted by the contactor in the BOQ to cover loading / unloading, transportation, storage, handling, contractor's profit, & overheads etc. In case, the additional Transportation Charges per litre of diesel have not been included in the BOQ, then payment towards the procurement of diesel shall be made on actuals on production of original purchase invoice (to be signed by the users) plus 10% (Ten percent) extra over the purchase cost of diesel to cover the aforesaid expenses. The cost of diesel will be accounted for as a part of the CA / JWO amount, without levying of any GST as the same is not applicable as per prevailing Govt of India norms. The contractor will be paid / reimbursed Only the actual procurement of the diesel on the Govt fixed prices on production of original Invoice / Purchase voucher. The Log book and consumption / utilization records of the diesel used vis-à-vis DG set(s), Central Heating Plants and / or any other equipment shall be maintained and submitted to the department / user. Collection of Diesel/Oil from source and transportation to DG set rooms, the bidder to quote Diesel Handling Charges per litre, subject to maximum ceiling of Rs. 10/- per litre inclusive of all taxes.

(m) **Performance Bank Guarantee (PBG)** / Initial Security Deposit (ISD) @ 2.5% (Two and half percent) of the initial contract price in the form of a bank Guarantee Bond, Fixed deposit Receipt (FDR), Insurance surety Bond etc. of any scheduled commercial Bank within 21 days of Letter of Intent (LOI) with initial validity up to 90 days beyond the completion of the contract shall be obtained from the successful bidder. The validity of the PBG/SD shall be extended in case the JWO period exceeds from the 15 months period. Refers General conditions of Contract Para 6.2, Page No. 22 to be followed.

(n) **Standing Bank Guarantee (BG)** could be submitted by the contractor in place of separate BG for the individual works. The amount of standing BG has been decided as ₹ 10 Lakh for the CCE Power Works and ₹ 2 Lakh for the EMU Power works for Annual maintenance contracts and for agencies enlisted under Composite Category (BIM) they may choose to submit SBG/FDR for the following values: -

<u>Value of Bank Guarantee</u>	<u>Bond/FDR</u>
i) Up to 60.00 Lakhs	Rs. 10.00 lakhs
ii) Rs. 60.00 to Rs. 150.00 Lakhs	Rs. 20.00 lakhs
iii)Rs. 150.00 to Rs. 500.00 Lakhs	Rs. 50.00 lakhs
iv)Rs. 500.00 to Rs. 2000.00 Lakhs	Rs. 100.00 lakhs

(p) **The progress** of these mandatory payments by the contractor as per periodicity laid down by the concerned appellate authorities will be monitored strictly by the Engineer-in-Charge / Estate Manager and necessary warning letters shall be issued to the defaulters from time to time. The correspondence with working agencies could be done through letters on hard copy or by registered email Id's of both Engineer-In-Charge/ Project Manager / Estate Manager and contractors. The printed copy of correspondences will be considered as legal conversation. The Engineer-In-Charge/ Project Manager / Estate Manager shall function as a nodal agency / enforcement agency for the ruthless implementation of payment of these mandatory payments.

(q) **The contractor may claim the bill in following ways:** The contractor may submit the wages bill of manpower along with proof of the statutory payment (e.g., EPF/ESI/GST etc.) for payment of the complete bill equal to the monthly amount after making the payment of all statutory payment i.e., EPF/ESI/GST/Bonus and other taxes (if any). The proof of payment in the form of challans (ECR Statements) to be enclosed. Claim for bonus amount will be submitted on half yearly (once in a six month) basis with proof of payments with connected documents like Form-‘C’ and form-‘D’.

(r) **All agencies / firms** shall be informed to make sincere efforts either to submit workwise challans for all the statutory payments or bifurcation of the combined challans should be enclosed with bills for the works awarded by CCE & EMUs of all the employees working with agency. This will help in faster and proper scrutiny and processing of bills, as well as greatly reduce the voluminous paper works attached with bulk manpower.

(s) **A detailed assessment** after six months regarding state of these payments will be done by the Engineer-in-Charge / Estate Manager and mid-course correction, if any, be recommended to the CCE, as required. It will be ensured that in case the balance payment of these mandatory payments is more than the due amount in a particular contract, then the excess amount will be recovered from all available sources including payment dues from Operative Guidelines: FY-2025-26 **CCE (R&D) Estates South, Hyderabad** Page 10 of 110 other EMUs and CCEs, if required. All efforts and actions as required shall be taken by the Engineer-in-Charge / Estate Manager to safe-guard the government interest in this regard.

(t) **Submission of the Bills and Payment to Contractor:** Late submission of bill does not absolve the contractor of the responsibility of timely payment of salaries to his staff. Necessary pre-receipted bill is to be submitted in triplicate along with the claim on IAFA-68, in duplicate and attendance sheet / muster roll, in duplicate through the concerned Estate Manager duly endorsed by him to Accepting Authority for making necessary payments. Deduction on account of absence of staff will be as per the daily wages of the absentee staff. Monthly bill shall be submitted with proof of payment of salaries of previous month to the employed workers. For proof of payment, the following documents will be accepted:

- (i) Statement of details of employees’ names, account number, amount credited duly stamped by bank as proof of payment of salary to them or internet banking statement clearly reflecting transfer of salary into individual accounts.
- (ii) Non-submission of the proof of payment of salary or payment of salary below the minimum specified wages will deemed to be a violation of contract conditions and bills without proof of payment will be returned forthwith. Returning of bills due to non-submission of requisite documents will not be accepted as ground for delayed payment of wages to staff. Some of the service providers are deducting “Food Charges” from salary of labour and then depositing less amount in their bank account which is not acceptable. Salary shall be paid as per MFW without any deduction.

- (iii) TDS @2% for Income Tax and GST as applicable will be recovered from the bills of the contractor as per Govt. rules and regulations. TDS certificate to this effect will be issued by the department.
- (iv) For maintenance purposes the consumables / accessories and other replaceable items which are not covered in scope shall be procured on prior permission from Accepting Authority or Engineer-in-Charge. Cost of the procured items/services will be paid along with the monthly maintenance bill on production of purchased bills with profit of 10% (Ten Percent) over the purchase bills. All replaceable shall be of standard make or approved by the Authorised Rep. / Engineer-in-charge of Accepting Authority.

(u) **Record of Employees:** Complete record of labourer being employed in all contracts shall be kept on record. The Aadhar details, bank account details, present address and police verification reports of all contract labour employed shall be maintained by the respective EMUs without fail. Employee Profile Form attached as **Appendix - 'D'** should be got filled within 45 days from the start of the job work order in respect of each level manpower. **The Estate Manager shall ensure that the engaged employee is competent, having the required qualification / experience and the approval will be granted by the Estate Manager. Once approved, no employee shall be changed by contractor without written permission of the Engineer-In-Charge.**

31. **Performance of Contractors:** It is clearly spelt out in various correspondences that irrespective of payment of monthly bills including supplementary bills to the contractors, they should ensure timely payment of wages, EPF, ESI, Bonus and GST as applicable. Delay in payment of monthly bills by EMU / CCE shall not be quoted as a reason for delayed payment to labours. The contractors shall be financially sound to cater for such eventualities. The details of contractors who default on the payment issue shall be communicated from time to time so that suitable action(s) including imposing of Ban or Downgrading the class of the contractor shall be implanted. Further, if the performance of contractor is not found satisfactory or due to violation of terms and conditions by the contractor and failure to deliver the obligations during the period of the contract will entail forfeiture of the security deposit.

32. **DAMAGES AND LOSSES / BREAKAGE :-**

(a) All the equipment and the items at site stands at the risk and sole charge of the contractor who shall deliver in proper condition at the time of annual stock taking to be done by the officials of Accepting Authority. Any shortfall shall be immediately made good by the contractor by replacement. If the same is not replaced within one month of stock taking, the amount shall be recovered from the dues/bills of the contractor. The contractor or his representative shall be present during the stock taking. If the contractor or his representative does not make themselves available, the stock taking shall be conducted in their absence, which will be binding on them. For losses, if any due to natural calamity or any other act of God, beyond the control of either party, the Office of Accepting Authority will replenish the same, as per obligation mentioned above.

(b) All damages / breakage to the equipment / inventory in the charge of the contractor, if caused due to negligence of the contractor's employee, the cost or repair / replacement of the equipment will be borne by the contractor. Whether the damage /

breakage has been caused due to negligence or normal wear and tear shall be heard and will be decided at sole discretion of the officials of Accepting Authority.

(c) Assistance in procurement of men and materials: - Except as otherwise provided, all personnel, materials, equipment, licenses, transport, and any other thing required for the execution of the contract shall be managed by the contractor under his own arrangement and the Accepting Authority shall not be responsible for the same in any way, what so ever. Any assistance required may however, be considered and given on receipt of a requisition in writing.

33. **LICENSE UNDER THE CONTRACT LABOUR ACT :-**

(a) The contractor shall obtain license under the Contract Labour Act and rules framed there under or other act / rules as applicable, before commencement of the work and continue to hold a valid license till completion of the contract period. The sites where the work is being executed are liable for inspection by Labour Officers / Labour Enforcement Officers or any other competent authorities. All site documents relating to labour employment as envisaged in the concerned rules / regulations / act shall be maintained by the contractor. Default in maintaining documents will entail penal action as per the relevant Act / rules / regulations, as the case may be. All other amenities authorized as per rules shall also be provided to the staff employed by the contractor.

(b) The contractor shall comply with the provision of the payment of Wages Act 1936. Minimum Wages Act 1948, Employment Liability Act 1938, Workmen Compensation Act 1923, Industrial Disputes Act 1947, and the Contract Labour (R&A) Act 1970 or the modifications thereof and the rules made there under from time to time.

(c) The contractor shall maintain the following registers as per the Contract Labour Act:-

- (i) Register of workmen as per form XIII of Rule 75.
- (ii) Register of wages as per form XVI of Rule 78.
- (iii) Employment Card as per form XIV of Rule 76.
- (iv) Muster Roll Register as per form XVII of Rule 78.
- (v) Any other register / record required by the Labour Commissioner from time-to-time.

34. **Chief Construction Engineer (R&D) Estates South, Hyderabad, DRDO** will not be responsible for any injury or loss of life of any of the contractor's personnel that may take place while on duty. Any compensation or expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the contractor.

35. **CONTRACT MANAGEMENT:**

(a) **Closure by Mutual Agreement:** In case of any administrative or technical reasons, natural calamities, force-majeure or any other issue which necessitates closure of any O&M work or either of the parties which desire foreclosure of work shall serve one-month notice to the other party stating the reasons for such closure. During the notice period, both parties shall discharge their obligations without fail. Necessary handing / taking over of assets shall be done at the end of the notice period. In case the Accepting Officer desires further extension due to any of the above reasons, the

contractor shall accept such demand of the Department by which time, alternate arrangements as required shall be made by the Department to take over the assets. In such eventualities, the decision of the accepting officer shall be final and binding.

(b) Failure to execute / perform the obligatory works becoming L1 bidder:

- (i) The L1 bidder is bound to accept the tender and execute / perform the work as envisaged in the tender documents. In case of unwilling to perform / execute the work or withdraw his L1 offer due to any reason including incorrect / wrong quoting. The Firm will be debarred to participate in any future tender for a minimum duration of one year or period as decided by accepting authority.
- (ii) Apart from the above, the complete EMD amount will be forfeited and the same will be deposited into Government treasury accordingly. No representation will be entertained in this regard. The decision of the accepting authority is final and binding.

(c) Handing / Taking Over:

- (i) The contractor shall on receipt of work order take over the systems (assets / facilities / infrastructure / equipment etc.) in serviceable and running conditions signing of proper handing / taking over documents.
- (ii) Similarly, on expiry of period of the contract, he shall hand over all the systems in serviceable / running condition to the succeeding contractor / department. The contractor at his own cost shall provide the deficiencies / shortcomings and carry out all repairs / maintenance required for the purpose.

(d) Notice to Local Authorities during Execution: The contractor shall be responsible for giving all necessary notices to the local authorities while the work is in progress. He shall also be responsible for the adequate lighting at any place and clear any heap of materials or other obstacles which may be dangerous or nuisance to the public.

(e) Stamp Duty: The stamp duty as applicable shall be payable only by the contractor.

(f) Payment of Minimum Fair Wages (MFW):

- (i) All statutory payments shall be responsibility of the contractor. The contractor shall pay his employees, the rate of Minimum Fair Wages (MFW) as approved by Government of India Min of Labour & Employment or as approved by the local authorities for the respective area of work being executed, whichever is higher, and as per Rules and Acts as amended by Government from time to time. If the minimum wages are revised by Government of India Min of Labour & Employment, the incremental wages, if applicable will be paid and contract value will be amended accordingly.
- (ii) The MFW shall comprise of basic rate and variable dearness allowance (VDA) and no other factor. The change in variable DA announced (gener-

ally every six months) during the currency of the work order shall also be payable to the employees which will be paid by department as applicable.

- (iii) The payment registers and other documents as specified by the governing authorities shall be maintained by the contractor. Default on payment of MW will lead to cancellation of the contract. In case of default, the contractor shall be liable for penalty and legal actions by competent labour authorities as per rules.
- (iv) The contractor shall comply with the provisions of the Payment Wages Act, Minimum Wages Act, Bonus Act, Employment Liability Act, Workmen Compensation Act, Industrial Disputes Act 1947, Maternity Benefits Act 1961 and the Contract Labour (R&A), Bonus Act or the modification / amendments thereof and other laws relating thereto and the rules made thereunder from time to-time.

Note: - The minimum wages for all Operation, Maintenance & Maintenance services to paid by the contractor to the employees as per GOI, Ministry of Labour and Employment Order”

Any lapse in this regard may lead to temporary / permanent de-enlistment or ban as decided by the Enlisting Authority. The decision of the Enlisting Authority is final and binding on the contractor. No representation in this regard will be entertained. In case of any injury / loss of life to the contractor's staff inside or outside the Laboratories / Establishment, it shall be the sole responsibility of the contractor in respect of payments towards any treatment or compensation or legal matters arising therefrom. The payment towards the group insurance shall also be made by the contractor.

(g) **Technical Examination of Works:** All works are subjected to technical examination by the Technical Examination and Design Cell (TEDC) of DRDO, New Delhi. All documents as required and as demanded by the inspecting officer shall be produced for verification. Observations raised by the inspecting officer shall be attended to by the contractor immediately. Recovery, if any, due to default or other reasons shall be payable by the contractor immediately. The same shall be deducted from the monthly bills, as and when due or from any other dues and in case the said contract is completed the recovery is made from the security deposit.

(h) **Engineer-in-Charge:** Generally, **the Estate Manager of the concerned EMU (R&D)** shall function as Engineer-in-Charge for all the O&M works, unless specified otherwise. They must ensure the following:

- (i) Operation & Maintenance of all O&M works as per contract conditions and as per general enquiry practice.
- (ii) Monitor / maintain attendance, deployment of labour, ensure quality of work etc.,
- (iii) Ensure firmly payment of wages and EPF, ESI, Bonus etc. to labour as per contract conditions / statutory provisions.
- (iv) Issue notices to the contractor in case of failure of payment of wages by contractor or payment not made as per minimum fair wages and other provisions given in the contract.
- (v) Periodic audit of MRO deposits of revenue collection of Transit tariffs by the contractor.

- (vi) Surprise check of performance of works, hygiene, uniforms etc.
- (vii) Planning and execution of various checks and balances as per rules / periodicity.
- (viii) Obtain bills from contractor along with supporting documents as listed, in time and forward to CCE for payment.
- (ix) Thorough check of all bills and supporting documents including checking of online payment of EPF, ESI, GST etc.,
- (x) He will be the overall in-charge of execution of all O&M works matters in consultation with CCE or his rep.
- (xi) Preparation and submission of replies to CTE / Test audit and other agencies when required.

(j) **Part Closure of Work Order:** If need arises for part closure of the work order / contract for specific period as decided by the **CCE (R&D) Estates South, Hyderabad**, due to admin or other reasons like special repairs, additions / alterations, etc., the **CCE (R&D) Estates South, Hyderabad** reserves the right to reduce the staff strength and the contract amount on pro-rate basis. Other charges, like payments, etc. shall be worked out proportionately, and shall also be deducted from the monthly bill accordingly. The decision of the **CCE (R&D) Estates South, Hyderabad** is final and binding in this regard. No representation will be entertained in this regard.

In case any / all services covered under the work order also need to be curtailed or suspended due to any reason, for a period to be communicated in writing by the **CCE (R&D) Estates South, Hyderabad**, commensurate rates as per admin approval including other charges and payments as applicable will be deducted from the monthly bill of the contractor. The contractor shall have no objection, whatsoever in this regard. The decision of the **CCE (R&D) Estates South, Hyderabad** shall be final and binding.

(k) **Arbitration:** In the event of any dispute / difference arising under the work order / contract (except the clause on any matter, the decision of which is specially provided for) shall be referred to the Director (Civil Works & Estates), DRDO HQ, New Delhi for arbitration whose decision will be final and binding on both. The arbitrator shall be appointed by the Director (CW&E), HQ DRDO / RD-28. The award of the arbitrator shall be final and binding on the parties. The arbitrator shall be entitled to extend the time of award by consent of the parties from time to time. The venue or arbitration will be at the discretion of the arbitrator. Subject as aforesaid, the arbitration Act 1940 and the Rules there under, any statutory modifications thereof for the time being in force, shall be deemed to apply to the arbitration proceeding under this condition. In case of any dispute, no other channel / mean shall be exploited by the contractor unless the provisions provided above.

**SPECIAL CONDITIONS OF CONTRACT - FOR OPERATION AND MAINTENANCE
UNDER E/M WORKS**

1. **OBLIGATIONS OF DRDO:** DRDO will meet the following obligations in respect of the buildings / facilities housing the services (Technical Facilities, Institutional Facilities, Substations, pump rooms and DG Set rooms, etc.).

(a) Payment of electric / water bills, taxes, etc., shall be paid. Any bills, if received by the contractor or at site on these accounts shall be forwarded to the concerned CCEs / EMUs for arranging the payment. In case, the due date of such bill is within a short period from date of receipt of bills, the same should be paid by the contractor in order to avoid payment of penalty. Original bill along with receipts should be submitted separately to the CCEs / EMUs for reimbursement of the payment made by the contractor.

(b) Renovation / alterations to the facilities for their efficient use will be undertaken by DRDO.

(c) Replacement of items rendered unserviceable due to fair wear and tear will be provided, whenever required / due.

(d) Initial provision of cooking gas cylinders, important items of cutlery, crockery, refrigerators water coolers etc., will be provided.

(e) Replacement of items rendered unserviceable due to fair wear and tear will be provided, whenever required / due.

2. **OBLIGATIONS OF THE CONTRACTOR:** The contractor will meet the following obligations in respect of the Operation and Maintenance of E/M Installations.

(a) Operation and supervision shall be done by adequately trained and skilled staff with requisite qualifications for the effective and safe working of the installation as per requirements and laid down instructions / maintenance manuals. In addition to operation schedule carried out by the personnel employed, the contractor's staff shall attend 24 hours emergency service and shall attend promptly all complaints within three hours.

(b) The work shall be carried out in accordance with standard engineering practices / codes, specifications and as per drawings and site instructions of the rep of CCE. The maintenance of installations shall be carried out as per the scope and procedure enumerated in the Maintenance Manual of the OEM's / Departmental Schedules.

(c) In case any laxity on the part of the contractor is noticed by the Engineer-in-Charge in not promptly attending to the complaints or not running / maintaining the E/M installation(s) efficiently then the Engineer-in-Charge may, at his absolute discretion impose penalty on the contractor to pay the Department a sum of Rs. 500.00 per hour for the period for which the equipment was not run efficiently due to the negligence of the contractor or his staff, further compensation will be paid by the contractors ascertained by the Engineer-in-Charge for the

damages which may occur. The decision of the CCE in this respect shall be final and binding on the contractor and the amount shall be recovered from the contractor's bill for the month.

(d) The contractor shall provide the required manpower of various categories and services for 'Operation and Maintenance under E/M Works' as per the work order. The Qualifications / Skill Level, Duties and Responsibilities of the personnel deployed by contractor are listed as under:

(e) In case the contract includes AMC of any equipment such equipment shall be checked / serviced / inspected by OEM at least once during the period of the contract / Alternatively the maintain agency can enter into a contract or MoU with the OEM. This is specifically required in case of plant and machineries like Boilers, Cranes, Autoclave, Bio-safety cabinets, IBMS et al.

3. QUALIFICATION / SKILL LEVELS:

(a) For the day-to-day operation of the E/M installations (like DG Sets, Crane, Lifts, HVAC plants, Central Heating Plants, Fire Fighting Plants, Surveillance Systems etc.). O&M contracts are concluded by employing the required manpower having relevant qualification and or experience. Skill level certificates of all persons employed shall be submitted to the department on award of contract. The following is the minimum desired educational qualifications and experience for the personnel contractor's personnel at site: -

Sl. No.	Designation	Skill Level	Qualifications / Experience in Relevant Field
Operation & Maintenance Services			
(a)	Supervisor	Highly Skilled	Diploma / ITI with 02 Years' / 10 th with 03 Years' or 05 years in similar field
(b)	DG Set Operator	Skilled	ITI with 03 Years' experience / 10 th with 03 Years' experience or 05 years' experience in similar field. Should have knowledge of normal maintenance
(c)	Electrician	Skilled	
(d)	Plumber	Skilled	
(e)	PAC Operator	Skilled	
(f)	HVAC Plant Operator	Skilled	
(g)	Fire operator	Skilled	
(h)	Boiler Operator	Skilled	
(i)	Mechanic / Fitter	Skilled	
(j)	Lift Operator	Skilled	
(k)	Crane Operator	Skilled	
(l)	Pump Operator	Skilled	
(m)	Electrician cum Plumber	Skilled	
(n)	Plant Operator	Skilled	

4. **Duties and Responsibilities:** The duties & responsibilities of few of the personnel are listed below, which are only illustrative and not exhaustive in nature. The duties and responsibilities of any other personnel employed for the Operation & Maintenance of E/M installations will be similar to the one listed below adhering to the good engineering practices depending upon the type of equipment / installation / facility / plant.

(a) **SUPERVISOR:**

- (i) The Supervisor shall check daily functionality of all installed equipment. Malfunctioning of any equipment shall be reported to Engineer-in-Charge and await his decision to carryout.
- (ii) Check daily attendance of all tradesmen working under him and any absence of any tradesmen shall be reported to Engineer-in-Charge and action be taken as per contract clause.
- (iii) For any break down / emergency occurred at site shall be cleared / attended with information to Engineer-in-Charge.

(b) **DG SET OPERATOR:**

- (i) Perform full operation of Emergency Diesel-Engine Generator Set.
- (ii) To conduct daily inspection and housekeeping of Diesel Engine Generator Sets to check battery charge status and hydrometer battery water testing, radiator water, engine lubrication oil level and lead testing of lubrication oil, water jacket heater operation and to keep accurate logs and records of all operating parameters battery water testing, radiator water, engine lubrication oil level and lead acid testing of lubrication oil, water jacket heater operation and to keep accurate logs and records of all operating parameters.
- (iii) To carry out no-load testing every week and to record all the reading in the standard Generator run test form.
- (iv) Diesel consumption, Power & other records, LPU records and running records.
- (v) Check the engine regarding tightness of all external nuts and bolts and retighten, if necessary.
- (vi) Check for any type of oil leaks and rectify.
- (vii) To check that terminals are not loose and power cables are not hot.
- (viii) To check that thimbles do not get loose due to heating.
- (ix) Flanged joints, etc. should be checked regularly.
- (x) Organize and carry out periodical services for Engine / Alternator and control panel and maintain record.
- (xi) Maintain record of consumables / replaceable and indent for quarterly supply of replaceable.
- (xii) Daily clean plants / plant rooms.
- (xiii) Log operation data on printed proforma-Hourly readings should be available. Also record abnormality / fault alarm, if any.
- (xiv) Clean all internally accessible parts by vacuum cleaner of alternator, en-

gine and panel at least once in a month.

- (xv) Check and reset all relays.
- (xvi) Check water / oil / acid / diesel / battery voltage / earth pits daily.
- (xvii) Check / clean replace fuses and lamps wherever required.
- (xviii) Check earth resistance of earth pits and ensure correct values periodically (Once in a month).
- (xix) Keep recording the energy consumption.
- (xx) Ensure LT outdoor panel boards tripping / switching on in times of per failure / break down.
- (xxi) Fuse blown out at LT panel and DG panel may attended by providing suitable fuse.
- (xxii) Attend breakdowns provide maintenance as may be required.
- (xxiii) All lubricating points bearing's and shift to be lubricated and V-Belt tension to be checked and maintained.
- (xxiv) Check and adjust tappet clearance, tightening of rubber hoses, bolts, nuts etc.
- (xxv) Replaced fuel, oil, Air Filters as per manufacturer recommendations.
- (xxvi) Maintenance of frequency, voltage as per user requirements.
- (xxvii) Check the readings of all the temperature and pressure during the idle and load running of the Engine Liaison with Department.
- (xxviii) Check parameters like voltage, current, kWh, running hours and maintain in log book.
- (xxix) Carry of the B/C Check as per its original manufacturer recommended schedule.
- (xxx) Check the vibration of DG Set and maintenance to be carried for vibration free operation.
- (xxxi) Water level/quality in the radiator should be checked periodically.
- (xxxii) Check the earthing of DG Sets / Earth station record the value, quarterly once in log book.
- (xxxiii) Check the control wiring loose connections and properly tightened.
- (xxxiv) Check the lube oil level daily and record in log book.
- (xxxv) Check the healthiness of battery and record in log book daily.

(xxxvi) Maintain the cleanness at DG Area.

(xxxvii) Check leakage of lubricating oil and arrest immediately locally to the possible extent.

ELECTRICIAN:

- (i) All type of electrical HT / LT Repair / Replacement of internal / external electrical work will be carried out by the electrician for smooth functioning of the facilities / installations.
- (ii) Assemble, install, test, and maintain electrical or electronic wiring, equipment, appliances, apparatus, and fixtures, using hand tools and power tools.
- (iii) Diagnose malfunctioning systems, apparatus, and components, using test equipment and hand tools, to locate the cause of a breakdown and correct the problem.
- (iv) Connect wires to circuit breakers, transformers, or other components.
- (v) Inspect electrical systems, equipment, and components to identify hazards, defects, and the need for adjustment or repair, and to ensure compliance with codes.
- (vi) Test electrical systems and continuity of circuits in electrical wiring, equipment, and fixtures, using testing devices, to ensure compatibility and safety of system.
- (vii) Use a variety of tools and equipment such as, measuring devices, power tools, and testing equipment including, ammeters, and test lamps.
- (viii) Install ground leads and connect power cables to equipment, such as motors.
- (ix) Repair or replace wiring, equipment, and fixtures, using hand tools and power tools.
- (x) Work from ladders, scaffolds, and roofs to install, maintain or repair electrical wiring, equipment, and fixtures.
- (xi) Fasten small metal or plastic boxes to walls to house electrical switches or outlets.
- (xii) Perform physically demanding tasks, such as digging trenches to lay conduit and moving and lifting heavy objects.
- (xiii) Electrical cubical boards to be cleaned with air blower twice a month.
- (xiv) To check that terminals are not loose and no power cable is hot.

(xv) To check that thimbles do not get loose due to heating / wear & tear.

(xvi) To check once a month that overload relays are operative.

(d) **PLUMBER**

(i) Assemble pipe sections, tubing and fittings, using couplings, clamps, screws, bolts, cement, plastic solvent, caulking, or soldering, brazing and welding equipment.

(ii) Fill pipes or plumbing fixtures with water or air and observe pressure gauges to detect and locate leaks.

(iii) Measure, cut, thread, and bend pipe to required angle, using hand and power tools or machines such as pipe cutters, pipe-threading machines, and pipe-bending machines.

(iv) Install pipe assemblies, fittings, valves, appliances and fixtures such as sinks and toilets, using hand and power tools.

(v) Cut openings in structures to accommodate pipes and pipe fittings, using hand and power tools.

(vi) Repair and maintain plumbing, replacing defective washers, replacing or mending broken pipes, and opening clogged drains, taps, shower, mixtures, water jet, gate valve, float valve, cleaning etc.

(vii) Check the all internal and external water pipelines for leakage / Seepage etc.

(viii) To ensure that the plumbing fittings are not leaking

(ix) To replace dysfunctional fittings

(x) Overhead tanks to be cleaned periodically or as directed by Engineer-in-charge.

(e) **PUMP OPERATOR:**

(i) Assemble pipe sections, tubing and fittings, using couplings, clamps, screws, bolts, cement, plastic solvent, caulking, or soldering, brazing and welding equipment.

(ii) Fill pipes or plumbing fixtures with water or air and observe pressure gauges to detect and locate leaks.

(iii) Measure, cut, thread, and bend pipe to required angle, using hand and power tools or machines such as pipe cutters, pipe-threading machines, and pipe-bending machines.

(iv) Install pipe assemblies, fittings, valves, appliances and fixtures such as sinks and toilets, using hand and power tools.

(v) Cut openings in structures to accommodate pipes and pipe fittings, using hand and power tools.

- (vi) Repair and maintain plumbing, replacing defective washers, replacing or mending broken pipes, and opening clogged drains, taps, shower, mixtures, water jet, gate valve, float valve, cleaning etc.
- (vii) Check the all internal and external water pipe lines for leakage / Seepage etc.
- (viii) To ensure that the plumbing fittings are not leaking.
- (ix) To replace dysfunctional fittings.

(f) **LIFT OPERATOR:**

- (i) He will execute the proper, efficient, and courteous loading and unloading of guests of all ability levels, through constant communication, awareness, and decision making.
- (ii) He will inspect, record, and report the condition of all lift machinery, and maintain proper and safe levels.
- (iii) A smile is part of the uniform.
- (iv) A lift operator is responsible for helping elderly people or disabled individuals to get inside the lift and outside it if required.
- (v) He has to open and close the safety gate at each floor where users want to get into / out of the lift.
- (vi) Execute daily preoperational inspection of lift machinery in order to accurately complete a legal lift log document.
- (vii) Any irregularities are reported to lift maintenance and the log is then filed for future reference.
- (viii) Foster excellent guest relations through positive interaction with guests.
- (ix) Knowledgeably and efficiently administer emergency procedures if required.
- (x) Successfully cope with all conditions associated with this position.

(g) **PLANT OPERATOR (Solar Thermal Power Water Heating System)**

- (i) Perform routine maintenance or repairs to restore solar thermal systems to baseline operating conditions.
- (ii) Apply operation or identification tags or labels to system components, as required.
- (iii) Assess collector sites to ensure structural integrity of potential mounting surfaces or the best orientation and tilt for solar collectors.

- (iv) Connect water heaters and storage tanks to power and water sources.
- (v) Fill water tanks and check tanks, pipes, and fittings for leaks.
- (vi) Install solar thermal system controllers and sensors.
- (vii) Test operation or functionality of mechanical, plumbing, electrical, and control systems.
- (viii) Determine locations for installing solar subsystem components, including piping, water heaters, valves, and ancillary equipment.
- (ix) Identify plumbing, electrical, environmental, or safety hazards associated with solar thermal installations.
- (x) Install circulating pumps using pipe, fittings, soldering equipment, electrical supplies, and hand tools.
- (xi) Install copper or plastic plumbing using pipes, fittings, pipe cutters, acetylene torches, solder, wire brushes, sand cloths, flux, plastic pipe cleaners, or plastic glue.
- (xii) Install flat-plate, evacuated glass, or concentrating solar collectors on mounting devices, using brackets or struts.
- (xiii) Install heat exchangers and heat exchanger fluids according to installation manuals and schematics.
- (xiv) Install monitoring system components, such as flow meters, temperature gauges, and pressure gauges, according to system design and manufacturer specifications.
- (xv) Install plumbing, such as dip tubes, port fittings, drain tank valves, pressure temperature relief valves, or tanks, according to manufacturer specifications and building codes.
- (xvi) Install solar collector mounting devices on tile, asphalt, shingle, or built-up gravel roofs, using appropriate materials and penetration methods.
- (xvii) Apply ultraviolet radiation protection to prevent degradation of plumbing.
- (xviii) Apply weather seal, such as pipe flashings and sealants, to roof penetrations and structural devices.
- (xix) Cut, mitre, and glue piping insulation to insulate plumbing pipes and fittings.
- (xx) Demonstrate start-up, shut-down, maintenance, diagnostic, and safety procedures to thermal system users.

(h) Boiler Operator

- (i) Operates automatically fired boilers to generate steam that supplies heat or power for buildings or industrial processes: Lights gas- or oil-fed burners, using torch.
- (ii) Starts pulveriser and stoker to grind and feed coal into furnace of boiler.
- (iii) Observes pressure, temperature, and draft meters on panel to verify specified operation of automatic combustion control systems, feed water regulators, stoker, pulveriser, and burners.
- (iv) Turns valves and adjusts controls to set specified fuel feed, draft openings, water level, and steam pressure of boiler.
- (v) Observes boiler and auxiliary units to detect malfunctions and makes repairs, such as changing burners and tightening pipes and fittings.
- (vi) May test and treat boiler feed water, using specified chemicals.
- (vii) May maintain log of meter and gauge readings and record data, such as water test results and quantity of fuel consumed.

(j) HVAC Operator

- (i) Performs maintenance and repair of HVAC equipment.
- (ii) Performs daily inspections of strip heater / chiller plant systems and effectively documents all discrepancies.
- (iii) Uses a variety of hand-tools and computers/devices for performing and documenting work.
- (iv) Maintain properly plant running record book.
- (v) Performs other duties assigned, including emergency call-in.

(k) Access Control System Operator

- (i) Operation and maintenance of the complete access control system installed in the Facilities / Buildings.
- (ii) Check the number and type of readers are in accordance with the specification and any amendment.
- (iii) Confirm that there remains adequate ventilation in the area of the CPU.
- (iv) Check warning labels are still in place.
- (v) Check all cables and conduit are properly supported, undamaged and showing no signs of wear.

- (vi) Check for sound physical fixings of all equipment including loosening or corrosion of supports and fixings.
- (vii) Check all glands, seals and connections on all external equipment.
- (viii) Does the equipment remain free from environmental problems such as dust, vibration, electrical interference etc.
- (ix) Does the system remain protected against unauthorized interference.
- (x) Are reader timings as specified.
- (xi) Check operation of all door fixings and furniture is satisfactory.
- (xii) Check function of all interfaces with alarms including correct triggering of alarms.
- (xiii) To provide all types of cards whichever is used / to be used for the system. Prepare the cards as per access allowed or denied out of the access points. These will be got approved by the user / engineer-in-charge, changes in the cards, changes in access for particular cards, record the data, maintain the logbook / records of all changes in the cards / new cards have to be maintained by the contractor.
- (xiv) Repair the system in shortest possible time to keep this system in perfect condition, keep essential spares / consumables.
- (xv) Maintenance / repairs of Access Control system wiring needs to be done without any damages / dirtiness of buildings.

(l) Central Heating System Plant Operator

- (i) Checking and servicing of central heating units.
- (ii) Check the heating coil units regularly and its heating effect in the rooms.
- (iii) Clean the outdoor/indoor units quarterly once maintain log book
- (iv) Replace the defects capacitors, contactors, Relays, fan blade etc.
- (v) Replace the burnt contactors after taking the permission of department. Maintain logbook & log sheet for Central heating Unit.

(m) Other General Conditions

- (i) Periodical maintenance of all E/M installations shall be undertaken in accordance with the respective maintenance manuals and instructions laid down by the CCE / EMU Office. This shall include daily checks, weekly, monthly & half yearly checks for all equipment, installations etc.
- (ii) The work under the contract also includes normal maintenance / cleanliness, rectification and repair of minor nature such as fixing / replacement of parts, fittings etc. The decision of the Engineer-in-Charge whether it is a routine / minor nature repair work, replacement of parts or otherwise shall be final and binding

- (iii) If any defect is noticed during operation, it should be immediately brought to the notice of Engineer-in-Charge / concerned EMU for timely action to rectify the defects. In case of delay in repair of defect for more than 24 hours the Engineer-in-Charge or his authorized representative will be informed immediately and will arrange for its early rectification. The cost of labour and tools to repair and rectify the defects will be borne by the contractor.
- (iv) Any major repairs / work required for DG Set, HVAC System, Cranes, Lifts, HT / LT Panel Boards, MCBs / DBs, Geysers, Water Supply System including Submersible pumps, etc. required will be brought to the notice of Engineer-in-Charge and got approved by CCE (R&D) Estates, Chandigarh before undertaking the work in hand against proper work order.
- (v) Minor nature of spares have already been listed in the BOQ herein after. However, in case of any other spares, if required but not covered / mentioned in the BOQ, shall be procured and incorporated by the contractor after taking prior approval of Engineer-in-Charge / CCE (R&D) Estates South, Hyderabad with CP 10% for payment and decision of CCE (R&D) Estates South, Hyderabad is final and binding.
- (vi) Proper record of stores and spares shall be maintained as directed by the Engineer-in-Charge. Cost of such items while in the custody of the contractor if lost / damaged or pilfered shall be borne by the contractor. The register for utilisation of stores / spares shall be maintained for receipt / consumption of these items and got signed from the Engineer-in-Charge Under all circumstances, it will be ensured that the facility / installations / equipment / plant shall not be kept off for want of spares / repairs.
- (vii) The following spares / consumables have to be supplied by the contractor (to be covered under quoted rates) as under:.
- Acid & Distilled water for battery.
 - Carbon Tetra Chloride (CTC) / CRC Solution
 - Caustic Soda
 - Control fuses
 - Cotton Waste
 - Emery Paper
 - Gaskets (Small Size)
 - Grease, lubrication oil
 - Hardware like washers' split pin, small screws etc.
 - Insulation Tape
 - Pumps gland ropes
 - Salt and Charcoal
 - Sand Paper
 - Teflon tape
 - Wire Brush
 - Wire fuse / HRC fuses

5. The guidelines for preventive maintenance for some machineries are given below:

(a) PREVENTIVE MAINTENANCE OF DG SETS: Preventive maintenance is the process of scheduled checking, replacement of parts and servicing of a machine to maintain the performance of the machine, increase the efficiency and continue the reliability of the machine. The preventive maintenance is very important due to the following factors:

- (i) It is cost saving
- (ii) Increase the efficiency of the machine
- (iii) Reduce the breakdown time of the machine
- (iv) To Continue the safety of the machine

(b) CHECK LIST FOR VARIOUS CHECKS ON DIESEL GENERATOR SETS

There are mainly four types of DG checklist that are performed during preventive maintenance

- (i) **A-Check:** This check is for preventive maintenance of DG sets. Daily Check for DG cleanliness, Fuel level in day tank, Oil level, coolant level, Batteries voltage, Specific gravity of batteries, Oil pressure, temp., and voltage generated.

A-check is done on daily basis on diesel generator sets wherein following checks are done:

- Check oil level in the diesel generator sets.
- Check cleanliness of diesel generator sets.
- Check battery voltage.
- Specific gravity of batteries.
- Check for any type of leakage.
- Check all filter condition.
- Check coolant level.
- Check the condition of V-belts.
- Check the voltage generated.
- Check the gauge valve level.
- Check the Fuel level in fuel tank

- (ii) **B-Check:** B-check is performed after 500 hours of running or 6 (Six) Months whichever is earlier. Replacement of Lube oil (15W40), Fuel filters, Oil filters, Fuel water separator, and Coolant top up will be done. In this type of check following parameters should be checked:

- Change oil
- Change oil filter, fuel filter and bypass filter
- Change air filter
- Change water separator
- Radiator cleaning with chemical
- Coolant top up will be done.

- (iii) **C-Check:** C-check is performed after 1500 hours of running of DG sets. C- Check activities will be done along with Air filters replace-

ment, Coolant replacement, Tappet set replacement if required. In this type of check following parameters should be checked:

- All steps of B-check.
- Check/change air filter (if needed).
- Check/change of other filters mentioned in B-check (if needed).
- Radiator cleaning with chemical and coolant replacement.
- Check all Electrical terminal & thimbles
- Check pollution level.
- Clean all battery cap vents.
- Tighten all exhaust connections.
- Tighten all electrical connections.
- Change water separator
- Start the engine and observe the instrument panel to ensure that all gauges and meters are operating properly

(iv) **D-Check:** Will be done for operation greater than 6000 hrs. B & C check activities with complete overhauling, coolant circulation pump check/ replacement, Calibration of all meters, AVR will be carried out. **This check will be performed after prior approval and separate sanction only.** D check means Dismantling check, it means after completion of 6000 hours running it needs to dismantle the engine and check all components and the followings should be checked and changed if required.

- O Rings of engine to be replaced if required.
- Turbo charger service
- Injector pin service
- Cylinder head service
- PT pump service
- Pump and injectors calibration
- Change engine oil
- Change oil filter, fuel filter and bypass filter
- Change air filter
- Change water separator
- Radiator cleaning with chemical
- Pump, motors, fan bearings should be changed.
- Check tappet setting.
- Calibration of all meters and AVR will be carried out.

If the DG set running is more than 10,000 hours, then in D-Check following should also be done:

- Change Piston Bearing
- Change nozzles
- Piston Cylinder also need to be changed
- Change Canopy filter if required.

Note: D-Check shall not be included in the tender and could be executed with separate sanction and prior approval only.

(c) **ELECTRICALLY / HAND OPERATED OVERHEAD CRANES / LIFTS**

- (i) The regular maintenance to be done as per guidelines/ booklets issued by OEM.
- (ii) At least one load test (01 No. Load Test) every year must be done in the presence of reps of OEM / Authorised maintenance company.
- (iii) Maintenance of cranes through authorised maintenance company and extra load tests can also be done on the demand of user or the requirement projected by the Users / Engineer-In-Charge. The extra load test could be carried out by prior permission of the CCE.
- (iv) Lifts maintenance to be carried out by OEM or his authorised representatives only.
- (v) The load test report and maintenance report to be furnished regularly.

6. **Maintenance of Records:** The contractor or his rep shall maintain daily check list, complaint book, log book and put up to the Engineer-in-Charge. However, contractor or his Engineer shall sign the same Daily to assess the performance of the facilities / equipment / installations / plant and take remedial actions for rectification if any for the smooth working of the same to the highest laid down efficiency.

7. The contractor shall maintain the following registers which shall be available for inspection to the authorities as and when required. Register showing contractor's staff employed on work giving name, designation and number of hours spent on duty, different shifts daily. Register showing spare parts issued by Engineer-in-Charge to Contractor and each part which has been incorporated and the unserviceable parts returned to the Engineer-in-Charge with signature of Engineer-in-Charge / his authorized reps. Maintenance of daily log sheet as per specimen given by Engineer-in-Charge. Register showing the earth resistance, insulation resistance, electric strength of oil along with date of measurement

8. **Tools and Accessories:** The contractor shall provide the following 'Minimum but not limited to' Essential Maintenance Tools and Accessories and quantity depending upon the type of Equipment / Facility under O&M contract. The below mentioned list is only indicative and not exhaustive. The contractor will provide / deploy all such tools and equipment as may be required to meet all eventualities that might arise during execution of the scope of work.

(a) **Air Conditioning / DG Sets**

i)	Psychrometer	-	1 No.
ii)	Multi-meter	-	1 No.
iii)	Tong Tester	-	1 No.
iv)	Screw Driver kit including Tester	-	2 Kit
v)	Spanner set in Standard tool box	-	1 Box
vi)	Earth Electrodes	-	2 Nos
vii)	Clip on Ammeter / Voltmeter	-	1 No.
viii)	Vacuum Cleaner	-	1 No.
ix)	A/C Standard tool kit	-	2 Kit
x)	Earth megger	-	1 No.
xi)	Electrician Tool Kit	-	2 Sets

xii) Electrician Gloves - 4 Pairs

(b) Electrical / Mechanical Maintenance

i) Earth Megger - 1 No.
ii) Multi-meter - 1 No.
iii) Tong tester - 1 No.
iv) Electrician Tool Kit - 2 Sets
v) All Special Spanners - 1 Set
vi) Screw drivers - 1 Set
vii) Allen Keys - 1 Set
viii) Electrician Gloves - 4 Pairs
ix) Earth Electrodes - 2 Nos.
x) LT & HT Insulation Muggers - 1 No.

(c) EOT Cranes / Lifts

i) Load conducting Setup - 1 No.
ii) Tools kit with Ring & DE Spanners Set - 1 No.
iii) Box Spanner Set - 1 No.
iv) Pipe Wrench - 1 No.
v) Electrical Tong Tester - 1 No.
vi) Electrical Megger - 1 No.
vii) Multi meter - 1 No.
viii) Crimping Tool Set - 1 No.
ix) Allen Keys Set - 1 No.
x) Hand Gloves - 4 Pairs
xi) Helmet - 2 Nos.
xii) Safety Belt - 2 Nos.
xiii) Torch - 2 Nos.
xiv) Screw Driver Set - 2 Nos.
xv) Electrical Tester - 2 Nos.
xvi) Electrician Tool kit - 2 Nos.

(d) Water Supply Maintenance Services

iii) Plumber Tool Kit - 1 Set
iv) Driver, Allen Keys - 1 No.
v) Tap Set - 1 No.
vi) Pipe Wrench - 1 No.
vii) All special spanners Screw - 1 Set
viii) Spanner set in Standard tool box - 1 Box
ix) Screw Driver kit - 2 Kits

9. The firm / agency will not allow or permit his employees to participate in any trade union activities or agitation in the premises of the DRDO

10. All personnel/employees / workmen employed by the firm/agency shall be, preferably, in the age group of 21-58 with good health and sound mind. The personnel / employees

/ workmen of the firm / agency shall be liable to security screening by the Security Staff deployed by DRDO.

11. The Firm / Agency shall appoint fully qualified and competent workers as per the requirement and eligibility at their own cost, to ensure that the services rendered by them are the best.

12. The employees employed by the firm/agency shall always be under the exclusive control and supervision of the firm/agency and the firm/agency may transfer its employees / workmen and in accordance with their needs in consultation with the Estate Managers / Engineer-in-Charge.

13. The Firm / Agency shall attend to all the complaints and address as early as possible to the satisfaction of EMU / CCE office. The deployed by the firm/agency for fulfilment of their contractual obligations under this agreement.

14. The successful bidder shall furnish the following documents in respect of the individual manpower who will be deployed to Transit Facilities of DRDO before the commencement of work.

(a) List of Manpower short listed by the firm / agency for deployment in Transit Facilities containing full details i.e. date of birth, marital status, address etc. along with copies of educational qualifications and experience certificates.

(b) Bio-data of the persons with passport size photographs.

(c) Character certificate from Group "A" officer of the Central / State Government etc.

(d) Certificate of verification of antecedents of persons by local police authority.

(e) Medical fitness certificates of the persons deployed.

15. Any theft or damage caused due to negligence of the firm/agency shall be borne by the firm/agency. Appropriate amount of penalty after due consideration and hearing will be imposed by the Estate Manager or an officer nominated by him on his behalf, and the same will be deducted from the monthly bill of the firm/agency.

16. The services will be provided r all days of the year with sufficient number of manpower required to run the operation. Leaves of the contract employees of the firm/agency should be strictly as per the statutory norms. Any unauthorized leave availed would be subject to penalty to the firm/agency.

17. Compliance of policy regulation viz., payment of central government minimum wages act, employers' liability act, contract labour (regulation & abolition) act, the workmen compensation act, industrial dispute act, maternity benefit act, employee state insurance act, provident fund act, miscellaneous provision act and labour license of state and central government, as on the date in existence or revised/changes in the future, will be whole sole responsibility of the firm / agency. In this regard the firm/agency at all-time should indemnify EMUs / CCEs against all claims and will maintain necessary books, logs, register, verification, returns, receipts, etc., mandatory as per the law and as per the government rules and make its available for inspection/verification to the concerned government officer/labour enforcement officer/regional provident fund commissioner, as and when required. Failure to comply

such instructions will lead to imposition of fine by termination of contract and/or such other action as the competent authority may deem fit.

18. The selected Firm/Agency shall be solely responsible for the redressal of grievances of the persons employed. EMUs/CCEs office shall in no way be responsible for settlement of such issue.

19. EMU / CCE office shall not be responsible for any damages, losses, FINANCIAL or other injury claims to any person deployed by service providing agency in the course of their performing the functions/duties, or for payment towards any compensation.

20. **Penalty:** If the Firm/Agency fails to deliver or perform the Services within the period(s) specified in the Contract, the Engineer-in-Charge shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as penalty, a sum equivalent to 1% per week and the maximum deduction is 10% of the contract price or unperformed Services for each week or part thereof of delay until actual delivery or performance. Once the maximum is reached, the Engineer-in-Charge may consider termination of the Contract. Further, the EMU or CCE office reserves the right to impose financial penalty to be deducted from the monthly bill for habitual short attendance of man power, non- maintenance of the specified assets in the contract and for violation of any other condition which may lead to non-performance of contractual obligations. **Unforeseen and weird circumstances will be dealt separately and quantum of penalty will be decided by EMU/CCE office. The decision of the Competent Authority will be final in this regard.**

GENERAL GUIDELINES

1. For the day-to-day operation of the E/M installations (like DG Sets, Crane, Lifts, HVAC plants, Central Heating Plants, Fire Fighting Plants, Surveillance Systems etc.), O&M contracts are concluded by employing the required manpower having relevant qualification and or experience. O&M means operation of the equipment/ installation along with day-to-day normal maintenance. The specimen AEs for O&M services is given at Annexure VI to VIII.

2. For other equipment, which is not feasible in the day-to-day routine/ normal maintenance, Annual Maintenance Contracts (AMC) are mandatory, which cannot be carried out the O&M contracts. The specimen AEs for AMC of the appliances is given at Annexure IX. The guidelines for the AMC of appliances are given in para3 below:

3. **Annual Maintenance of Appliances:**

(a) Service reports for all the appliances to be furnished every year.

(b) Only major/ critical electrical appliances which required special expertise and cannot be repaired by inhouse maintenance to be considered for comprehensive AMC. For routine/ standard/ small appliances like fans etc the maintenance can be carried out through the man power employed from E&M works and locally procured stores.

(i) The sample of items for the comprehensive AMC are: Air Coolers, Water Coolers, Microwave Ovens, Deep Freezer, Refrigerator, Electrical Chimney, Mixer Grinder, Aqua guards etc.

(ii) The items like Fans, Exhaust Fans, Lights, Shoe Shiners, Table Lamps, Emergency Lights etc., shall not be considered for AMC tenders but for maintenance through store items the estimates could be submitted.

(c) The periodic service records should be maintained to ensure proper preventive maintenance

EMPLOYEE PROFILE FORM
कर्मचारी के विवरण का प्रारूप

Name / नाम	:	_____	<u>Affix</u> <u>Passport Size</u> <u>Photo</u>
Name of Post / पद का नाम	:	_____	
Date of Birth / जन्म तिथि	:	_____	
Aadhaar Card No. / आधार संख्या	:	_____	
Father / Husband's Name पिता / पति का नाम	:	_____	
Local Address & Mobile / स्थानीय पता तथा मोबाइल नं	:	_____	
Permanent Address & Mobile स्थायी पता तथा मोबाइल नं	:	_____	
Police Verification पुलिस सत्यापन हुआ या नहीं	:	_____	
Bank Account Details बैंक खाता विवरण	:	_____	
Educational Qualification & experience (if any) शैक्षिक योग्यता तथा कार्य अनुभव, यदि है	:	_____	
UAN / EPF Number	:	_____	
ESI Number	:	_____	
Date / दिनांक	:	_____	Signature
Work Order Number & Date	:	_____	
Contractor's Name & Address	:	_____	
Remarks / टिप्पणी	:	_____	
Date / दिनांक	:	_____	Contractor's Signature
Remarks / टिप्पणी	:	_____	
Date / दिनांक	:	_____	Officer-in-Charge

कर्मचारी निर्धारित कार्य के योग्य है / योग्य नहीं है
Employee is suitable / Not suitable for allotted work

Estate Manager

Inventories of Plant and Equipment

The details of Provision of maintenance and Services for work to be carried out for Electrical installations.

(i) MTRDC, Bengaluru**List of Installations/ equipment**

- 3 Nos x 120 TR capacity air cooled screw chiller
- Primary and secondary pumps
- Air separator
- Hot water generator
- Chilled water pipe lines
- Hot motor pipe lines
- Ducts
- AHU 24000 CFM
- AHU 9000 CFM
- AHU 1500 CFM
- AHU 10000 CFM
- AHU 7000 CFM
- AHU 12000 CFM
- AHU 2000 CFM
- AHU 2500 CFM
- AHU 3000 CFM
- AHU 8000 CFM
- Fan coil units – 3.0 TR - 3 Nos
- Fan coil units – 2.0 TR - 12 Nos
- Fan coil units – 1.5 TR - 14 Nos
- VSU – 04 Nos
- VEU 02 Nos
- Clean Room Facility
- Electrical Panel
- AHU Panel
- Internal Electrical light fixture – LED
- Street lights
- Transformer
- Generator
- VCB Panel
- Main Electrical Panel
- Building Sub Panels
- Cables
- Earth pits
- Internal & External water supply
- Water treatment Plant
- Fire alarm system
- Fire Fighting system- Diesel engine, Jockey pump, Main pump,
- Fire Fighting electrical main panel
- 2 Ton capacity cranes
- 160/250/400A MCCB encloser

Note: (a) Detailed inventory will be issued by Estate Manager, Bangalore

(b) Monthly / quarterly service report to be submitted for split air conditioners, precision air conditioning and fire alarm and security system.

TOOLS AND ACCESSORIES

a. Earth Megger	-	1 No
b. Psychrometer	-	1 No.
c. Multimeter	-	1 No
d. Tong tester	-	1 No
e. Electrician Tool Kit	-	2 Sets
f. Electrician Gloves	-	4 Pairs
g. Earth electrodes	-	2 Nos
h. Plumber Tool Kit	-	1 Set
i. Screw Driver kit including Tester	-	2 Kit
j. Spanner set in Standard tool box	-	1 Box
k. All special spanners Screw Driver, Allen Keys, Nut, bolt Specific size etc	-	1 Set
l. Cable fault detector	-	1 No
m. Clip on Ammeter/Voltmeter	-	1 No
n. Vacuum cleaner	-	1 No
o. A/C Standard tool kit	-	2 Kit

CONSUMABLES

Consumables are to be supplied by the contractor,

- a. Cotton Waste
- b. Sand paper
- c. Wire brush
- d. Insulation Tape
- e. Grease and oil
- f. Silica gel
- g. Charcoal & Salt
- h. Teflon tape

SCOPE OF WORK

TYPE A: Mechanical Scope of Work

- Start the engine and observe the instrument panel to ensure that all gauges and meters are operating properly.
- Checking the engine for its smooth running, un-usual noise, and colour of the smoke from exhaust.
- Checking and adjusting Fan Belt and Water Pump belt tensions. Changing of both, if required.
- Carrying out valve tappet setting as and when required.
- Checking the alignment of Engine and Alternator whenever required.
- Check of proper functioning of various instruments of dashboard/ instrument panel.
- Diagnosis of various faults and then rectification parts required will be provided by AMC agency.
- Health Check of Battery.
- Checking of Acoustics Enclosure.
- **B-Check:** B-check is performed after 500 hours of running or 6 (Six) Months whichever is earlier. Replacement of Lube oil (15W40), Fuel filters, Oil filters, Fuel water separator, and Coolant top up will be done. In this type of check following parameters should be checked:
 - Change oil
 - Change oil filter, fuel filter and bypass filter
 - Change air filter
 - Change water separator
 - Radiator cleaning with chemical
 - Coolant top up will be done.
- **C-Check:** C-check is performed after 1500 hours of running of DG sets. C-Check activities will be done along with Air filters replacement, Coolant replacement, Tappet set replacement if required. In this type of check following parameters should be checked:
 - All steps of B-check.
 - Check/change air filter (if needed).
 - Check/change of other filters mentioned in B-check (if needed).
 - Radiator cleaning with chemical and coolant replacement.
 - Check all Electrical terminal & thimbles
 - Check pollution level.
 - Clean all battery cap vents.
 - Tighten all exhaust connections.
 - Tighten all electrical connections.
 - Change water separator

Note :-

1. All periodical maintenance of Diesel Generator (DG) Sets i.e, C-Check shall be carried out by the Original Equipment Manufacturer (OEM) or its authorized service representatives. In instances where the OEM or its authorized service representatives is not available or thier services are not feasible, the maintenance may be carried out by a competent third-party service provider, subject to the following conditions:

- a) The third-party service provider must have demonstrated experience and technical capability in servicing the specific make and model of the DG set.
- b) Only genuine OEM-recommended spare parts shall be used during maintenance.
- c) Detailed service reports, including parts replaced and work performed, must be submitted for verification.
- d) Prior written approval must be obtained from the competent authority before engaging any non-OEM service provider.
- e) All safety and compliance standards as per OEM guidelines must be strictly followed."
- f) Original Equipment Manufacturer (OEM) or its authorized service representatives and competent third-party service provider have to ensure adherence to manufacturer-specific service protocols, maintain warranty validity, and ensure the safe and efficient operation of the equipment.

2. The B check shall be carried out by the selected firm exclusively at designated hard stations where access to the Original Equipment Manufacturer (OEM) is not feasible during the harsh winter season. These stations are characterized by extreme weather conditions and logistical constraints that may prevent timely OEM support. The firm must ensure that all necessary personnel, tools, and spares are available at these locations to carry out the B check in compliance with the applicable maintenance standards and protocols. Adequate documentation and reporting of all checks performed must be maintained and submitted to the concerned authority.

3. Periodical maintenance services for DG Sets carried out by the OEM shall be reimbursed upon submission of original paid invoices or purchase bills. Payments will include a profit margin of 10% (ten percent) over the actual invoice amount towards CP&OH. This Overhauling, Repairs and Servicing of the Machine & periodical services to be carried out with prior permission of CCE (R&D) Estates South, Hyderabad.

4. Any replaceable items not covered under the standard maintenance scope shall be procured from the consumables sub-head, subject to prior approval from the CCE (R&D) Estates South, Hyderabad. The cost of such procured items or services will be reimbursed along with the monthly maintenance bill upon submission of original purchase bills. Payment will include a profit margin of 10% (ten percent) over the invoiced amount.. All replaceable shall be of standard make or approved by the Authorised Rep. / Engineer-in-charge of CCE (R&D) Estates South, Hyderabad.

TYPE B: Electrical Scope of Work

- Checking and fault finding In the Electrical System associated with the Engine.
- General cleaning of alternator from inside with hand blower.
- Checking carbon brushes, if applicable for their proper length and spring tension (in case of conventional alternator).
- Cleaning battery terminals for sulphation and checking its state.
- Maintenance of instruments relays and connectors fitted in Genset Control Panel.
- Checking of wiring system for its loose and dry connections.
- Charging of rectifiers whenever required (in case of conventional alternator).

- Checking rotating diode assembly in brushless alternator.
- Checking of mounting bolts.
- Diagnostics of various faults and their rectification at the site.
- Testing of alternators, once in six months only for L T.
- Fault rectification of AMF Panel.
- Greasing of alternator bearing as per manufacture recommendation.

**SCHEDULE OF INSTRUCTIONS FOR OPERATION AND MAINTENANCE OF
DG SETS**

The following schedule of instructions is for a few makes of DG sets and are given as a general guide. However, please refer to respective maintenance manual supplied with the DG set by OEM. It is also recommended that a detailed logbook giving full parameters of the engine working, maintenance carried out etc. should be maintained for individual DG set.

1. MODES FOR STARTING DG SET

The following procedures are adopted for starting diesel generator set using battery.

- Push button (Manual)
- Auto start (Auto)
- Test mode (For testing purpose)

The mode of operation can be selected by means of selector switch

a. Push Button Start/ Manual mode

After pressing the start push button and turning the ignition key toward start position, the battery is connected to the starter which cranks the engine shaft resulting in the start of the engine. This arrangement can also be provided in small DG sets. This requires least physical efforts to start DG set. To prevent damage to the starter, do not push the start button for more than 10 to 12 seconds.

b. Auto Starting System/ Auto mode

This method is adopted where the supply from the generator is regularly required. In this mode, the DG set starts automatically in case of (i) mains failure, (ii) low/high mains voltage beyond 150-250 V for single phase DG set and 360-460 V for 3 phase DG set (iii) single phasing or phase reversal of main supply. When the engine starts, and alternator reaches the preset voltage, the DG contactor closes and automatically restores the supply to the load.

The auto start system makes three attempts to start, in case it fails to start, the starting system automatically disconnected and locked out. After restoration of healthy mains voltage, the DG contactor opens and main supply extended to the load. However the DG set continuous to run for 3 minutes and shutdown after that if mains supply remain stable.

During the above mentioned 3 minutes, if the mains fail again, the DG shutdown sequence discarded and the DG contactor closes again to restore the DG supply to the load.

c. Test mode

In this mode all functions are likely to manual mode but DG supply can not be transferred to load. This mode is provided for the purpose of testing the DG set.

Before starting the engine, perform daily maintenance checks. Follow the instructions given below for reliable operation:

- To prevent damage to the starter, **do not push the start button** for more than 10 to 12 seconds. Wait for at least **2 minutes** between each attempt to start.
- If the engine does not start after three attempts, check the fuel supply system and fuel level in fuel tank. Absence of blue or white exhaust smoke during cranking indicates that no fuel is being delivered.
- Move the ignition key from start position to idle as soon as the engine starts.
- Monitor the oil pressure and coolant temperature gauges frequently.

(b) STOPPING OF DG SET

- i. Remove the load from the engine.
- ii. Run the engine few minutes (3 to 5 minutes) before routine shut down on no load.
- iii. It will allow the lubricating oil and coolant to carry heat away from the combustion chamber, bearings, shafts etc.
- iv. Shut off the engine if oil pressure or coolant temperature is exceeding the specified limits.
- v. Avoid continuous operation of the engine with low or high coolant temperature, it may damage the engine.

3. WARNINGS/ INDICATIONS BEFORE ANY FAILURE

Most failures give an early warning. **Look** and **listen** for changes in **performance, sound or engine appearance** that can indicate service or engine repair is needed. Some changes to look for are as follows:

- i. Engine misfires
- ii. Vibration
- iii. Unusual engine noise
- iv. Fuel, oil or coolant leakage
- v. Sudden change in engine operating temperature or oil pressure

- vi. Excessive smoke
- vii. Loss of power
- viii. An increase in lube oil consumption

4. GENERAL SAFETY INSTRUCTIONS

Improper practices or carelessness can cause burns, cuts, mutilation or other bodily injury or death. Read & understand safety precautions and warnings before performing operation, any repair/maintenance.

1. Do not wear loose clothing.
 - ii. Always wear protective glasses and protective shoes while working on the engine.
 - iii. Ensure that the work area surrounding the DG set is dry, well illuminated, ventilated and spacious.
 - iv. Ensure that the work area surrounding the DG set is free from loose tools, parts, ignition sources and hazardous substances.
 - v. Rotating parts can cause cuts, injury or strangulation.
 - vi. Disconnect the battery (-ve) cable first and discharge before beginning any repair work.
 - vii. Use only the proper engine barring techniques for manually rotating the engine. Do not attempt to rotate the crankshaft by pulling or prying the fan. This practice can cause serious personal injury, property damage or damage to fan blades.
 - viii. If the engine has been operating and the coolant is hot, allow the engine to cool before you slowly loosen the filler cap and relieve the pressure from the cooling system.
 - ix. Do not work on anything that is supported only by lifting jacks or a hoist. Always use blocks or proper stands to support the job before performing any maintenance work.
 - x. Be alert for possible pressure when disconnecting any device from a system that utilizes pressure. Do not check for pressure leaks with your hand. High pressure oil or fuel can cause serious injury.
 - xi. Corrosion inhibitor contains alkali. Do not get the substance in your eyes. Avoid prolonged or repeated contact with your skin. Do not swallow internally. In case of contact, immediately wash skin with soap and water.
 - xii. To avoid burns, be alert for hot parts and hot fluids in lines, tubes and compartments.
 - xiii. Always use tools that are in good condition. Use only genuine OEM replacement

parts.

- xiv. Do not use fasteners of lesser quality if replacements are necessary.
- xv. Avoid inhalation of vapour, ingestion and prolonged contact with used engine oil.

5. MAINTENANCE OF KIRLOSKAR DIESEL ENGINES (SL 90 SERIES)

1. A-SCHEDULE (DAILY MAINTENANCE)

SN.	Proposed Maintenance	Work Involved	Remarks
1.	Cleaning	Clean engine and premises.	
2.	Checking of engine oil level.	Check engine oil level before starting the engine, top-up if required.	It should be between top and bottom mark of dipstick
3.	Checking of fuel supply.	<ul style="list-style-type: none"> ◆ Drain sediments from fuel tank. ◆ Check and ensure sufficient quantity of fuel. ◆ Clean breather hole on fuel tank. ◆ Fill up the fuel tank at the end of each working day. 	Never wait until the tank is empty
4.	Checking of air filter/ system	<ul style="list-style-type: none"> ◆ Remove dust accumulated in the dry type air filter bowl, through vacuator valve. ◆ Check the condition of rubber hoses and clamps. 	
5.	Checking of cooling system	Check coolant level in radiator, top- up if required.	
6.	Checking of battery.	Check battery terminal and connections.	
7.	Checking of engine parameters	Check all meters for normal working in engine running condition.	

2. B-SCHEDULE (MAINTENANCE AFTER EVERY 50 HOURS)

SN.	Proposed Maintenance	Work Involved	Remarks
1.	Repeat Maintenance	Repeat A- Schedule	

2.	Checking of air filter/ system	<p>a. In very dusty condition, clean the bowl of dry type air cleaner and if necessary change the element.</p> <p>b. In normal working condition, this is to be done only when a need for air cleaner service is indicated by the restriction indicator.</p>	After filter replacement, reset the indicator.
3.	Checking of 'V' belts tension	Check 'V' belts tension by pressing with the thumb midway between the pulleys.	Deflection not more than 10
4.	Checking of battery.	Check electrolyte level, add distilled water if required.	
5.	Other maintenance	Check the cable connections at starter, battery, dynamo/ alternator and control panel.	

3. C- SCHEDULE (MAINTENANCE AFTER EVERY 300 HOURS)

SN.	Proposed	Work Involved	Remarks
1.	Repeat Maintenance	Repeat A & B - Schedule	
2.	Changing of engine oil	Refer item no. 1 of first 50 hrs. Maintenance	300 hrs. or 12 months whichever is earlier. Prior permission for the replacement of engine oil to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/ consumables. (See para 4 of Appendix – 'A')
3.	Cleaning of centrifugal filter.	Refer item no. 2 of first 50 hrs. Maintenance	
4.	Checking of lube system	Refer item no. 4 of first 50 hrs. Maintenance	
5.	Fuel supply system	<ul style="list-style-type: none"> ◆ Drain the fuel filter bowls to remove the accumulated sediments and water. ◆ Clean the preliminary filter sieve with clean diesel, fitted on feed pump inlet. 	

4. D- SCHEDULE (MAINTENANCE AFTER EVERY 600 HOURS)

SN.	Proposed Maintenance	Work Involved	Remarks
1.	Repeat Maintenance	Repeat A, B & C - Schedule	
2.	Changing of spin –on type filters	Refer item no. 3 of first 50 hrs. Maintenance	
4.	Fuel supply system	Replace the pre filter insert of fuel filter. (Do not change pre-filter & micro filter insert at the same time, first change the pre filter insert and after about 200 to 250 hours. change micro- filter insert.)	Prior permission for the replacement of filters to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/ consumables. (See para 4 of Appendix – ‘A’)
	Checking of valve tappet clearance.	Refer item no. 8 of first 50 hrs. Maintenance	

v.E - SCHEDULE (MAINTENANCE AFTER EVERY 1200 HOURS)

SN.	Proposed Maintenance	Work Involved	Remarks
1.	Repeat Maintenance	Repeat A, B, C & D - Schedule	
2.	Checking of fuel injector	Check the nozzle spray on nozzle tester. Replace the nozzle sealing washer and refit the nozzle and connect high pressure pipe.	Prior permission for the replacement of nozzle to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/ consumables. (See para 4 of Appendix – ‘A’)
3.	Cleaning of fuel tank	Clean the fuel tank thoroughly with diesel. Do not use water for cleaning.	1200 hrs. or every 6 months whichever is earlier
4.	Cleaning of radiator	Clean radiator externally by blowing pressurised air in the reverse direction of the flow of radiator fan.	Do not spill water on radiator fins.
5.	Checking of thermostat element.	Check thermostat element for its safe operation by visual inspection. Its element shall rest in its seat i.e. it should close tightly.	

6.	Other maintenance	Inspect electrical unit i.e. starter, dynamo/ alternator, regulator etc. Replace worn out, defective parts and carbon brushes as required. Lubricate dynamo, starter etc. as required.	
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● **MAINTENANCE OF CUMMINS DIESEL ENGINES (B SERIES)**

a. A-CHECK (DAILY MAINTENANCE)

SN.	Proposed	Work Involved	Remarks
1.	Cleaning	Clean engine and premises.	
2.	Checking of engine oil level.	Check engine oil level before starting the engine, top-up if required.	It should be between H and L mark of dipstick
3.	Checking of coolant system	Check coolant level in radiator, top-up if required with premix coolant. Check belt condition.	Before starting
4.	Checking of fuel system	<ul style="list-style-type: none"> ● Check fuel strainer ii. Clean breather on fuel tank iii. Drain sediments/water from fuel water separator. iv. Fill up the fuel tank at the end of each working day. 	Never wait until the tank is empty
5.	Checking of air system	<ul style="list-style-type: none"> ● Check vacuum indicator for air restriction (red band). ii. Check sealing and condition of air filter. 	
6.	Other checks	<ul style="list-style-type: none"> ● Check for leaks and rectify if required. ii. Run engine and record all parameters. 	

b. B-CHECK (EVERY 225-250 HRS. OR 6 MONTHS WHICHEVER IS EARLIER)

SN.	Proposed	Work Involved	Remarks
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1.	Changing lubrication oil	<ul style="list-style-type: none"> ● Warm up the engine and stop. ii. Remove drain plug and drain engine oil in a pan of 20 ltrs. capacity. iii. Refit drain plug. iv. Fill the recommended new engine oil to H mark on dipstick. 	Prior permission for the replacement of engine oil to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/consumables. (See para 4 of Appendix – 'A')
2.	Changing of lube oil filter	<ul style="list-style-type: none"> ● Clean filter head and its surroundings before removing it. ii. Remove the filter and clean the gasket surface. iii. Fill the new filter with clean lubricating oil and apply a light film of lube oil to the gasket sealing surface. 	
3.	Checking of cooling system	<ul style="list-style-type: none"> ● Repeat all A- checks ii. Check fan hub and fan drive arrangement. iii. Check seal of radiator cap. 	

c. C-CHECK (EVERY 475-500 HRS. OR 12 MONTHS WHICHEVER IS EARLIER)

SN.	Proposed Maintenance	Work Involved	Remarks
1.	Checking of lubrication system	<ul style="list-style-type: none"> ● Repeat all A & B checks. ● Clean breather. 	
2.	Checking of cooling system	<ul style="list-style-type: none"> ● Repeat all A & B checks ii. Check coolant condition. iii. Check recovery bottle and seal. iv. Check connections and sealing of radiator. v. Clean radiator externally by blowing pressurised air in the reverse direction of the flow of radiator fan. 	Do not spill water on radiator fins
3.	Checking of fuel system	<ul style="list-style-type: none"> ● Repeat all A & B checks ii. Check all joints in fuel lines and tighten. iii. Check feed pump and clean baby filter. 	
4.	Checking of air filter/ system	Repeat all A & B checks.	

5.	Other checks	<ul style="list-style-type: none"> • Repeat all A & B checks ii. Check AVMs (anti vibration mountings) and replace if required. 	Prior permission for the replacement of AVMs to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/consumables. (See para 4 of Appendix – 'A')
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d. **D-CHECK (Every 950-1000 hrs. or 24 months whichever is earlier)**

SN	Proposed Maintenance	Work Involved	Remarks
1.	Checking of lubrication system	<ul style="list-style-type: none"> • Repeat all A, B & C checks. • Clean breather. • Check Blow Bye. 	
2.	Checking of cooling system <ul style="list-style-type: none"> • Checking of belt, belt tension, belt tensioner. • Replacement of coolant. 	<ul style="list-style-type: none"> • Repeat all A, B & C checks. • Remove the drive belt and inspect the belt for damage. • Check the tensioner bearing by spinning pulley under hand pressure, it should spin freely with no rough spots feelings. • Check the fan hub bearing by spinning fan hub under hand pressure, it should spin freely without excessive end play. • Install the good/new drive belt. If required. • Measure the belt deflection at the longest span of the belt. • Replace coolant by premix coolant. • Replace radiator cap. 	Max. Deflection 9.5-12.7 mm Prior permission for the replacement of belt to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/consumables. (See para 4 of Appendix – 'A')

3.	Checking of fuel system <ul style="list-style-type: none"> • Cleaning of fuel tank • Checking of fuel hoses 	<ul style="list-style-type: none"> • Repeat all A, B & C checks. • Clean the fuel tank thoroughly with diesel. • Check fuel hoses condition and replace if required. 	Do not use water for cleaning. Prior permission for the replacement of fuel hoses to be obtained from CCE(R&D) for claiming reimbursement as part of replaceable/consumables. (See para 4 of Appendix – 'A')
4.	Checking of air filter/ system	<ul style="list-style-type: none"> • Repeat all A, B & C checks. • Check turbocharger end clearances. 	
5.	Other checks	<ul style="list-style-type: none"> • Repeat all A, B & C checks 22. Tighten all clamps. • Check valve clearances and adjust if required. 	Intake clearance = 0.254mm Exhaust clearance = 0.508 mm

- DO'S & DON'TS

- GENERAL

- **Do's**

- Correct Troubles while they are simple.
- Engine shall only be operated or maintained by trained staff / authorised person.
- Cleaning, maintenance and repair work should only be carried out in engine stopped position and also ensure securing against starting.
- Disconnect the battery -ve terminal before any repair to electrical system to ensure human safety.
- Ensure that the engine is operated only from the control panel.
- Ensure that alternator neutral is earthed properly.
- Ensure all the safety switches/devices/trip connections are healthy.
- Ensure sufficient ventilation around acoustic enclosure.
- Ensure availability of first aid box at proper place and check it regularly.
- Ensure availability of fire extinguishers at easily accessible place.

- Smoking and naked flames are prohibited nearby engine housing.
- Connect the load only when generator voltage regulation is normal.
- Run the engine few minutes (3 to 5 minutes) before routine shut down on no load. It will allow the lubricating oil and coolant to carry heat away from the combustion chamber, bearings, shafts etc.
- Clean the oil, fuel, dust etc. and always keep the engine clean and dry.
- Dispose used filters and oil properly to achieve safe work environment and prevention of pollution.
- Move and dispose the material which has been contaminated by fuel/ lube oil to a safe place to avoid fire cases.
- **Don'ts**
- Don't start the engine without checking of engine fuel and level of lubricating oil.
- Don't hold the ignition key in 'ON' position after engine fires as it will lead to starter motor failure.
- Don't hold the ignition key in 'ON' position.
- More than 10-12 seconds if engine does not fire as it may damage starter motor. Wait for at least 2 minutes for next attempt.
- Don't leave the key on dash board after stopping the engine.
- Don't keep inflammable substances in the way of exhaust gases.
- Don't mix different grades of grease.
- Don't remove or open fuel cap of fuel tank while engine is running.
- Don't fill the fuel tank to full capacity.
- Don't mix kerosene or any other fuel to Diesel.
- Do not use cheap/ adulterated fuel which will call expensive repairs of high precision of components such as fuel pump, injection nozzle etc.
- Do not shake diesel drum during filling the fuel in fuel tank. Otherwise the impurities settle at the bottom of the drum will get mixed up with the diesel.
- Don't tight nuts and bolts during engine running, it can cause damage to components.
- Don't touch engine parts just after stopping the engine, they may be hot and may cause serious injuries.

- Don't let oil and other liquids drops into the soil during maintenance.
- Don't wear loose clothing or have long hairs.
- Don't overload the DG beyond its designed rating as it will affect the reliability and life of DG.
- Don't operate the DG with unbalance of load beyond 25% between phases as it may damage to main alternator.
- Don't stop the DG suddenly without off loading the set as it may damage the DG parts.
- Don't allow the engine to run idle for a long period.

- **AIR SYSTEM**

- **Do's**

- If air restriction indicator is broken or not functioning, replace the same.
- Clean wet air filters by washing in fuel (Diesel) only.
- Ensure the tightness of clamps and hoses between air cleaner housing and turbocharger.
- Use genuine paper elements/ filters only.
- Remove element from wrapper/packing only at the time of replacement.

- **Don'ts**

- Don't operate the engine with choked air cleaner or air cleaner vacuum indicator with red indication as it will lead to black smoke and loss of power etc.
- Don't use water and soap suds for cleaning wet air filters, this will ruin/ damage the filter fabric.
- Don't operate the engine with cracked hoses and loose clamps, as life of engine will be reduced.
- Don't run the engine with the air cleaner or pre-cleaner disconnected.

- **FUEL SYSTEM**

- **Do's**

- Fill the diesel tank at the end of the day's work to minimize water drops in fuel tank due to condensation of moisture.

- Before starting the engine, drain water and sediments from water separator as they will re-circulate and fuel filters will get choked early resulting in less efficiency.

Don'ts

- Don't operate the DG set with less fuel in fuel tank to avoid air lock and engine starting problem. In case of air lock, operate the hand primer in the feed pump until all air is displaced through the bleeding screw.
- Don't smoke or use any naked flame while refueling the fuel to avoid any explosion hazard.
- Don't use tools for fitment of fuel filters. Mechanical over tightening may distort the threads or damage the filter element seal.

COOLING SYSTEM

Do's

- Check the coolant level in the recovery bottle before starting the engine and top up, if necessary.
- Use only coolant/pre mix coolant in radiator for recharging as well as for top up.
- Stop the leakage in time if any.
- Clean the radiator fins with compressed air periodically.
- Check the belt tension periodically.
- Replace the belt as soon as the sign of cracks or wear are noticed.

Don'ts

- Don't open the radiator cap in radiator with recovery bottle as it will loss air pressure inside radiator which will affect the cooling system.
- Don't change the thermostat setting as it will interfere with proper functioning of cooling system.
- Don't add coolant when engine is hot as it may crack cylinder head.
- Don't operate the engine with mutilated belts or loose belts as it will lead to the problem of overheating.
- Don't tension the belt excessively; this will aggravate wear just as much as slack belts.

LUBRICATION SYSTEM

Do's

- Use correct grade & correct brand of lubricating oil as recommended by OEM.
- Use genuine filters only.
- While topping up the lubricating oil, the funnel and the container must be

properly cleaned.

Don'ts

- Don't keep dipstick upwards, otherwise the oil running down would falsify the measuring result.
 - Don't add more oil than FULL mark on the dipstick as it will lead to the problem of more oil consumption and higher oil temperature.
 - Don't operate the DG set below low level of lube oil on dipstick to avoid oil deterioration and damage to engine parts.
- w) Don't mix different brands of lubricating oils or mix any other oil to lube oil.
- xxiv. Don't use tools for fitment of lube filters. Mechanical Over-tightening of the filter may distort the threads or damage the filter element seal.

MAINTENANCE INSTRUCTIONS FOR POWER TRANSFORMERS

The following schedule of instructions is given as a general guide. However, please refer to respective maintenance manual by OEM. It is also recommended that a detailed logbook giving full parameters of the transformer be maintained.

Maintenance Schedule

SI No	Inspection frequency	Items to be inspected	To be checked	Action required if inspection shows unsatisfactory conditions
1	Hourly	Ambient temperature		
2	Hourly	Winding temperature	Ensure that temperature rise is within specified limits.	
3	Hourly	Oil temperature		
4	Hourly	Load(amps)		Check against rated figures given on the name plate
5	Hourly	Voltage		
6	Daily	Oil level in transformer	Check oil level gauge	If low, top with dry oil find whether there is any leak.
7	Daily	Oil level in bushing	--	--
8	Daily	Dehydrating breather	Check that air passages are free. Check colour of active agent	If silica gel is pink, change by new charge. The old charge may be reactivated for using again
9	Daily	Oil level in OLTC conservator	Check oil sight window or oil level gauge	If low, top with new dry oil

SI No	Inspection frequency	Items to be inspected	To be checked	Action required if inspection shows unsatisfactory conditions
10	Daily	Relief diaphragm of OLTC explosion vent	--	Replace if cracked or broken
11	Daily	Cooler fan, bearing motor & operating mechanism	Check the bearings. Examine contacts, check manual control and interlock	Lubricate the bearing. Replace burnt or worn contacts.
12	Quarterly	Bushings	Examine for cracks and dirt deposit	Clean the dirt. If cracked or broken replace the bushing.
13	Quarterly	Oil in transformer	Check for dielectric strength and water content	Take suitable action to restore quality of oil.
14	Half yearly or at the end of 5000 operations	Oil in the diverter switch of OLTC	<ul style="list-style-type: none"> ➤ Dielectric strength ➤ Water content 	<p>Filter or replace if BDV is less than specified value.</p> <p>Measure the water content using KARL FISHER method. Replace/recondition if exceeds that limits specified</p> <p>Filter or replace</p>
15	Yearly	Oil in transformer	Check acidity resistivity, tan delta and sludge	Filter or replace
16	Yearly	Oil filled condenser bushing	Refer to the maintenance schedule for OIP condenser bushings	As recommended
17	Yearly	Gasket joints	--	Tighten the bolts evenly to avoid uneven pressure

SI No	Inspection frequency	Items to be inspected	To be checked	Action required if inspection shows unsatisfactory conditions
18	Yearly	Cable boxes	Check sealing arrangements and find out whether there is any leak	Replace gasket if leaking
19	Yearly	Relays alarm and other circuits	Examine relay and alarm contacts, their operation fuses etc. check relay accuracy.	Clean the components. Replace contacts and fuse if necessary
20	Yearly	Painting	Rusting/colour	Touch up to be done
21	Yearly	Earth resistance	--	Take suitable action if earth resistance is high
22	After 50000 operations of the OLTC -do-	Arcing contacts	--	Replace if necessary
23		Lubricating oil in the gear box of driving mechanism	Low oil level	Add or replace with lubricating oil
24	5 yearly 7 – 10 yearly	1000 kVA to 2000 kVA above 3000 kVA	Overall inspection including core and coil	Wash the core and coils with clean oil

ENQUIRY NO: CCEESTS/ENQ/BLR/E&M/ 30 /2026-27 DATED 16 MAY 2026**DETAILS OF ESTIMATED COST OF TENDER**

Name of Work: Operation and Maintenance Services for Electrical Installations Internal / External Electrifications, DG Sets, Area Lighting, Fire Fighting System, Fire Alarm System, Water Supply, Canes and Air Conditioning Plants Including Clean Room Facility (Class/ 10000/1000) at MTRDC, Bangalore

Station: Bangalore ('A' Area)

PART A (Monthly Wages)

Sl. No.	Description/ Category	Skill Level	A/U	Qty	Rate per month (in Rs)	Amount (in Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Supervisor	Highly Skilled	No	1	28444.00	28444.00
2	Technician (Electrical)	Skilled	No	7	26208.00	183456.00
3	Plumber/Carpenter	Semi Skilled	No	3	23868.00	71604.00
4	Helper	Un Skilled	No	4	21502.00	86008.00
5	Total (Sl.No. 01 to 4)			15		369512.00
6	EPF @ 13.00% (considered upto maximum ceiling of Rs. 15000/- per head) (15x Rs. 15000/- @ 13%)					29250.00
7	ESI @ 3.25% (considered upto maximum ceiling of Rs. 21000/- per head) (0@ 3.25%)					0.00
8	Bonus @ 8.33% on wages per year (on 0) considered upto maximum ceiling of Rs. 21000/- per head					0.00
9	VDA 6% on Sl. No. 5					22170.72
10	Total (Sl. No. 5 to 09)					420932.72
11	Total for 12 Months (Sl. No. 10 x 12)					5051192.64
NIT Amount					Say	5051193.00 (A)

PART - B**DETAILS OF GST AND OTHER PAYMENTS TO BE REIMBURSED**

12	Uniforms (02 sets for each) including shoes for all Staff (including winter clothing wherever applicable) @ Rs. 4000/12months X Total No of staff.	Nos.	15	333.33	59999.40
13	Total (Add Sl No. 12)				59999.40
14	GST at prevailing rate i.e @18% (on Sl. No. 11 & 13)				920014.63
15	Grand Total (Sl. No. 13 + 14)				980014.03
Say					980014.00 (B)

ESTIMATED COST PUT TO TENDER							
16	Wages Amount (PART A)				(A)	5051193.00	
17	Reimbursement Amount (PART B)				(B)	980014.00	
18	Estimated Cost of Tender (Sl. No. 16 & 17) (A) + (B)						6031207.00
19					Say	6031207.00	
20	CP & OH (15% on NIT Amount i.e Sl.No. 11)						757678.95
21	GST at prevailing rate i.e @18% on CP & OH (Sl. No. 20)						136382.21
22	Grand Total (Sl. No. 19+20+21)						6925268.16
23	Consumables @ 10% + 10% profit (Sl No.5*10% + Profit 10%)						487755.84
24	GST at prevailing rate i.e @18% on Consumables						87796.05
25	Grand Total (Sl. No. 22+23+24)						7500820.05

NOTES:

- The wages for the staff has to be considered for the complete month with six days working and one weekly off.
- Minimum Wages shall be revised in April and October every year hence the contractor shall pay the wages accordingly without waiting reminder from department.
- Wages to be paid to the workers shall not be less than that notified by Chief Labour Commissioner, Ministry of Labour and Employment, Government of India.

The wages for the staff for the Operation & Maintenance Services have been considered for the complete month.

Minimum Wages shall be revised in April and October every year hence the contractor will pay the wages accordingly without waiting reminder from department

The Contract value will be inclusive of Wages and all statutory payments viz. GST, EPF, ESI, Bonus, CP & OH, two sets of Uniforms and all types of sundry expenses.

EPF has been considered @13.00% on maximum wage ceiling of ₹15,000/- per month for each employee engaged by the contractor / Firm. The Firm must deposit the EPF Contribution of the Employees in their existing UAN only.

ESI has been considered @ 3.25% on maximum wage ceiling of ₹ 21,000/- per month for each employee engaged by the contractor / Firm. Contractor / Firm should be registered with Sub-Unit Code in ESIC portal. The Firm must deposit the ESIC Contribution of the Employees in their existing ESIC Number only.

Bonus: - The bonus shall be paid by the contractor on behalf of the principal employer as laid down in the respective act. This amount shall be paid to the workers distributed over 12 months. If there is any change in Govt. policy regarding increase / decrease in the amount, shall be reimbursed / recovered accordingly. As per Bonus Amendment Act-2015, the amount for the bonus shall be paid to employees as ₹7000/- or 8.33% of the minimum fair wages as per Chief Labour Commissioner (C) for the days he worked in a year for the scheduled employment, whichever is higher for ceiling limit of maximum fair wages is Rs. 21,000/-. The bonus shall be reduced proportionally for the days employee does not work. (Point No. 13 of Bonus Act 1965)

The contractor will prepare the bills based on prevailing minimum wages rates, obligatory charges and quoted profit over the total amount. payments viz. GST, EPF, ESI, Bonus, CP & OH, two sets of Uniforms and all types of sundry expenses.

The Contract value will be inclusive of Wages and all statutory During execution of tender the labour wages and / or obligatory charges may change as promulgated by Government of India vide 'Authority of Labour Rate' of the Appendix 'A' given above; hence the amount of job order to be changed accordingly through amendments.

The bills to be prepared on the format of estimated cost of tender where the rates of wages and other obligatory charges will be taken as per prevailing acts payments viz. GST, EPF, ESI, Bonus, CP & OH, two sets of Uniforms and all types of sundry expenses.

Minimum Fare Wages not less than as per notification issued by Ministry of Labour and Employment, Government of India to be paid to the workers.

Minimum Fare Wages means Basic Minimum Wages plus dearness allowances declared time to time by the Ministry of Labour

Tentative amount for Uniforms and accessories has been considered in the estimate but if tenderer feels it not enough, he may include excess price in quoted percentage

Any change in GST and other obligatory charges from the estimated value, will be paid / deducted accordingly

Any variation in the minimum wages and statutory charges, taxes etc. due to notifications issued by concerned ministry / departments will be paid / deducted by department on actual basis

The amount for Consumables / Stores items which are to be used for miscellaneous maintenance works, to be taken as Rs. 5,75,552/- (including 10% Contractor profit & GST) for complete tender period of one year. The payment towards the procurement / supply in consumables shall be made on actuals on production of original purchase invoice (to be signed by user / Engineer-In-Charge). value, will be paid / deducted accordingly

Any change in GST and other obligatory charges from the estimated value, will be paid / deducted accordingly

Any other charges which are not included in the tender estimate will not be reimbursed hence contractor should quote accordingly

Any variation in the minimum wages and statutory charges, taxes etc. due to notifications issued by concerned ministry / departments will be paid / deducted by department on actual basis

The amount for Consumables / Stores items which are to be used for miscellaneous maintenance works, to be taken as Rs. 5,75,552/- (including 10% Contractor profit & GST) for complete tender period of one year. The payment towards the procurement / supply in consumables shall be made on actuals on production of original purchase invoice (to be signed by user / Engineer-In-Charge).

Please note that the minimum service charges @5.00% {para 24 (b)} over the Minimum Fair Wages approved by the competent authority includes payment to be made by the contractor towards Insurance Cover (Workmen I Employee Compensation Insurance Policy and Group Mediclaim Insurance) as enumerated above in para {30 (c), sub-parts A&B of Terms & conditions } for the contractual employees not covered under ESI (wages more than Rs. 21,000/- per month).